## IN THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF MARYLAND NORTHERN DIVISION

WILLIAM LOCKWOOD,

Plaintiff

Civil Action No.

v.

PACIFIC USA, LTD., PACIFIC CYCLE, LLC and TOYS "R" US - DELAWARE, INC.

WMN-02-CV-2068

Defendants/Third-Party **Plaintiffs** 

v.

SR SUNTOUR, INC. and SR SUNTOUR, USA

Third-Party Defendants

## DEFENDANTS/THIRD-PARTY PLAINTIFFS' MOTION TO ADOPT THIRD-PARTY DEFENDANT'S CROSS-MOTION FOR SUMMARY JUDGMENT ON PLAINTIFF'S COMPLAINT AND FOR LEAVE TO FILE A MEMORANDUM IN SUPPORT THEREOF

Defendants herein, by and through their undersigned counsel, respectfully request this Court grant them leave to adopt Third-Party Defendant, SR Suntour, Inc.'s, Cross-Motion for Summary Judgment on Plaintiff's Complaint, and for leave to file instanter a memorandum of law in support thereof.

Respectfully submitted,

Bruce R. Parker Federal Bar No. 00028 Michele R. Kendus Federal Bar No. 26586 Venable, Baetjer and Howard, LLP Two Hopkins Plaza, Suite 1800 Baltimore, Maryland 21201-2978 (410) 244-7400 Attorneys for Defendants Pacific Cycle, LLC, and Toys "R" Us, Delaware, Inc.

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# PACIFIC CYCLE'S AND TOYS "R" US' MEMORANDUM IN SUPPORT OF THIRD-PARTY DEFENDANT'S CROSS-MOTION FOR SUMMARY JUDGMENT ON PLAINTIFF'S COMPLAINT

Defendants, Pacific Cycle, LLC ("Pacific Cycle") and Toys "R" Us – Delaware, Inc. ("Toys "R" Us"), by and through their undersigned attorneys hereby file this Memorandum in Support of Third-Party Defendant's Cross Motion for Summary Judgment on Plaintiff's Complaint, which Defendants hereby adopt as if filed on their behalf, and state as follows:

#### I. INTRODUCTION

Despite evaluations of the Bicycle and fork component provided by no less than three of Plaintiff's experts, hundreds of pages of deposition testimony and several of Plaintiff's experts' reports, no specific, provable defect has been identified that caused the alleged fork failure. The gravamen of the plaintiff's experts' opinions is that the fork component separated; therefore it was defective. Because the Plaintiff has failed to provide any evidence of a product defect that caused the alleged

injuries, which is an essential element of any product liability claim, the Defendants are entitled to judgment as a matter of law.

This products liability case arises out of an accident that occurred on June 7, 1999, allegedly due to the malfunction of a bicycle known as the Pacific Cycle "Strike" mountain bike ("the Bicycle"). Plaintiff alleges that the Bicycle was manufactured by Pacific Cycle and sold to him by the defendant, Toys "R" Us. Pl. Compl. ¶ 9. Plaintiff bought the Bicycle in May, 1997, some two years prior to the accident. See deposition of William Lockwood (December 9, 2002)(hereinafter "Plaintiff's depo."), relevant portions attached hereto as Exhibit 1 at 86-87.

The Plaintiff identified the Bicycle component that allegedly malfunctioned, causing the accident, as an "S/R Duo Track 7006" suspension fork (the "fork component"). Pl. Compl. ¶ 10. The SR Duo Track 7006 suspension fork is a component designed and manufactured by third-party plaintiff, SR Suntour, Inc. ("Suntour"). Specifically, Plaintiff alleges that a bond failed between the fork crown and steerer tube, which connects the fork assembly to the rest of the Bicycle. Other than speculation, conjecture and surmise, no specific provable defect has been identified that caused the alleged incident. To the contrary, Plaintiff and his experts state that because the incident occurred, they assume the product was defective in some fashion. They then proceed to identify several possible defects that may have contributed to the incident. This is not sufficient to support Plaintiff's claims.

#### STATEMENT OF FACTS II.

There is no dispute that the Bicycle had undergone two years of use prior to the accident. During that two years, Plaintiff conceded that the Bicycle had suffered some damage both from riding and from the bike repeatedly falling over onto the pavement due to a broken kickstand. See Plaintiff's Answers to Interrogatories propounded by Toys "R" Us, Answer No. 7, attached hereto as Exhibit 2. Plaintiff also concedes that in August 1998, a little more than a year after using the Bicycle, he and his mother took it to "Bike Line" bicycle shop for a "safety check" and certain repairs. Exhibit 1, Plaintiff's depo. at 64,

89. Although Plaintiff testified unequivocally that the "safety check" was done as soon as he took the Bicycle out of winter storage in the garage before riding it for the summer, he also testified that he was sure he rode it during June and July of 1998. Exhibit 1, Plaintiff's depo. at 88-90.

It is undisputed that Bike Line replaced two tires, a wheel spoke rim, a front free wheel, two sets of brakes, a seat, a kickstand, and a water-bottle holder on the Bicycle. Exhibit 1, Plaintiff's depo. at 71-74. The seat, cup holder, and kickstand were all replaced because they had been previously broken by the plaintiff or were worn out from heavy use. Exhibit 1, Plaintiff's depo. at 72, 81. The Plaintiff also testified that one of the reasons he took the Bicycle to Bike Line is that the handlebars "wiggled." Exhibit 1, Plaintiff's depo. at 85. He advised his mother of the wiggling handlebar, and she brought it the attention of the Bike Line shop. Exhibit 1, Plaintiff's depo. at 92. The total cost of repairs made to the Bicycle at Bike Line was nearly equivalent to the initial purchase price of the Bicycle. See deposition of Dianne Saunders (December 9, 2002) (hereinafter "Saunders depo."), relevant portions attached hereto as Exhibit 3, at 36-37. In addition, about three months prior to the accident, Plaintiff replaced the pedals on the Bicycle on his own. Exhibit 1, Plaintiff's depo. at 66-67.

During the two years prior to the accident, the Plaintiff testified that he rode the Bicycle approximately three times per week for four and one-half months during the first summer. Exhibit 1, Plaintiff's depo. at 57, 90. He testified that he would ride around his neighborhood for approximately 15 to 20 minutes traveling a distance of about one mile. Exhibit 1, Plaintiff's depo. at 58-59. Plaintiff frequently performed a bicycle-jumping stunt known as a "bunnyhop," and was attempting such a stunt at the time of the accident. Exhibit 1, Plaintiff's depo. at 120-21, see also deposition of Jesse Wolcott (December 17, 2002)(hereinafter "Wolcott depo."), relevant portions attached hereto as Exhibit 4 at 31-32, 83-84. This stunt requires the rider to pull up on the handle bars and simultaneously lift both tires of the bicycle off the ground. The bicycle then pounds back to the ground with great force.

#### III. OPINION TESTIMONY

The plaintiff filed expert reports on August 29, 2002, including the report of a metallurgical engineering consultant, Robert Hinton (attached hereto as Exhibit 5) a general bicycle safety and accident reconstruction expert, John Schubert (attached hereto as Exhibit 6), and an engineering expert, James Green (attached hereto as Exhibit 7). Plaintiff's experts contend that the alleged SR Duo Track 7006 suspension fork failure was the cause of the Plaintiff's accident. Two of Plaintiff's experts opine that the fork component was defectively designed, while the other expert offers the conflicting theory that the fork was not properly manufactured.

Pacific Cycle's expert engineering consultant, David Mitchell, provided a report ("Mitchell report," attached hereto as Exhibit 8), in which he opines there was no design defect of the SR Duo Track 7006 fork, and that the separation of the steerer tube from the fork crown may have been from the "manner of use" of this particular bike. He further opines that a manufacturing defect could not be identified due to the post-accident condition of the fork and because of the unavailability of certain information.

Suntour's expert, Andrew Blackwood, opines that the bond between the steerer tube and fork crown met the established objectives for which it was designed and manufactured, but was then subjected to "considerable abuse," ultimately leading to the product failure. ("Blackwood Report" at 4, attached hereto as Exhibit 9.) In relevant part, he also states that any modifications to the design of the component suggested by Plaintiff would not have avoided this incident. This is because there is no specific defect that had been identified as the cause of the incident.

Upon inspection by Mr. Mitchell and Mr. Blackwood, the Bicycle was noted to have sustained "notable wear and tear in the form of scratches, scrapes, severe chain wear, and displacement of the handlebar within the stem clamp." *See* Exhibit 8, Mitchell Report at 2; *see also* deposition of Andrew Blackwood, April 16, 2003, at 44-6 ("Blackwood depo", attached hereto as Exhibit 10). Additionally,

Mr. Mitchell questioned alterations to the Bicycle due to a mismatch between the front and rear tires and rims. Exhibit 8, Mitchell Report at 1. Mr. Blackwood noted scored and abraded markings on the Bicycle handlebars that indicate it had repeatedly contacted "something hard and abrasive – perhaps pavement," and that it was traveling when the contact was made. Exhibit 10, Blackwood depo. at 44-5.

Despite having replaced the brake pads, the wheels and the tires, and only riding approximately three miles per week, Plaintiff's own expert opines that the Bicycle showed signs that it was "well worn." Specifically, the most-worn parts of the bike were the recently replaced tires, the pedals and the braking surfaces on the front wheel. Also, the newly replaced wheel rims were out of true. See Exhibit 6, Schubert report.

#### IV. LEGAL ANALYSIS

The essence of Plaintiff's claim is that merely because the incident occurred, Defendants and/or Third-Party Defendants are liable. However, the sellers are not insurers, as absolute liability is not imposed on the seller for any injury resulting from the use of the product. Jensen v. American Motors Corp., 50 Md. App. 226, 232, 437 A.2d 242, 245 (1981). The plaintiff may not base recovery solely on any presumption that might arise from the happening of the accident. Id.; see also International Motors Md. Cas. Co. v. Therm-O-Disc, 137 F.3d 780, 786 (4th Cir. 1998). Instead, Plaintiff must present proof that a defect existed at the time the product left Defendants' control and that the product was in substantially the same condition at the time of sale as it was two years later when the alleged incident occurred. Because the Plaintiff has failed to produce evidence beyond mere speculation to prove these essential elements of his claim, Defendants are entitled to judgment as a matter of law.

#### Summary Judgment Standard A.

Summary judgment is proper if the evidence before the court, in the form of pleadings, deposition testimony, answers to interrogatories, and admissions of record, establishes that there is no genuine issue as to any material fact and that the moving party is entitled to judgment as a matter of law. Fed. R. Civ. P. 56(c); *Celotex Corp. v. Catrett*, 477 U.S. 317, 322 (1986). Rule 56 mandates the entry of summary judgment against a party who, after reasonable time for discovery and upon motion, "fails to make a showing sufficient to establish the existence of an element essential to that party's case, and on which that party will bear the burden of proof at trial." *Celotex Corp.*, 477 U.S. at 322. "[A] complete failure of proof concerning an essential element of the non-moving party's case necessarily renders all other facts immaterial [and] [t]he moving party is 'entitled to judgment as a matter of law." *Id.* at 323 (citations omitted). If the evidence favoring the non-moving party is "merely colorable, or is not significantly probative, summary judgment may be granted." *Anderson v. Liberty Lobby Inc.*, 477 U.S. 242, 249-50 (1986) (citations omitted). Unsupported speculation is insufficient to defeat a motion for summary judgment, *Felty v. Graves-Humphreys Co.*, 818 F.2d 1126, 1128 (4th Cir.1987), and the mere existence of some factual dispute will not overcome a motion for summary judgment; the factual dispute must present a genuine issue of material fact. *Anderson*, 477 U.S. at 247-48. Thus, only disputes over those facts that might affect the outcome of the case under the governing law are considered to be "material." *Id.* 

## B. The Right to Recovery May Not Rest Solely on the Happening of the Incident

In order to prevail on a product liability claim a plaintiff must satisfy three basic elements from an evidentiary standpoint: (1) the existence of a defect; (2) the attribution of the defect to the seller; and (3) a causal relation between the defect and the injury. *Jensen*, 50 Md. App. at 232, 437 A.2d at 245. Consequently, the plaintiff must present evidence sufficient for a jury inference that the suspension forks were defective and that this defect existed at the time of manufacture. See *Harrison v. Bill Cairns Pontiac*, 77 Md. App. 41, 51, 549 A.2d 385, 390 (1988). An inference of a defect may be drawn from the happening of an accident <u>only</u> where circumstantial evidence tends to eliminate other causes, such as misuse or alteration. *Id.* at 50, 549 A.2d at 390. "It is axiomatic, however, that 'proof of a defect must

arise above surmise, conjecture or speculation; and one's right to recovery may not rest on any presumption from the happening of an accident." Id. (quoting Jensen, 50 Md. App. at 232).

Factors to be considered in determining whether a product defect may be inferred from circumstantial evidence include: (1) expert testimony as to possible causes; (2) the occurrence of the accident a short time after the sale; (3) similar accidents with this product; (4) the elimination of other causes of the accident; and (5) the type of accident that does not happen without a defect. Id. at 51, 549 A.2d at 390. These factors are referred to herein as the Harrison factors. After consideration of the Harrison factors in this case, it is clear that Plaintiff may not derive any inference from the mere happening of the event.

#### The Application of the Harrison Factors C.

With regard to the first factor, it is not clear what the asserted defective condition was at the time of the incident as Plaintiff does not delineate whether it was a manufacturing defect or a design defect that led to his alleged injuries. One of Plaintiff's experts opines that there are several possible causes for the incident. The separation of the fork crown from the steerer tube may have been caused by temperature variations or changes that have a disparate effect on the steel and aluminum components. See deposition of James Green, at 46 ("Green depo." attached hereto as Exhibit 11). It may have been that the steerer tube and the fork crown were mis-sized. Id. at 47. It is also possible, according to the Plaintiff's expert, that there was a procedure to epoxy or otherwise bond the two parts that was missed on this particular fork. Id. at 48. It is also possible that there was a misalignment when these two particular parts were joined together. Id. Thus, Plaintiff's expert states that while he is of the opinion that this component should not have failed, he is not sure why it failed and instead opines that because of the incident the component was defective in some fashion.

Another of Plaintiff's experts testified that "in the case of the failure, the failed bike, I really don't know what happened. I can speculate, but - it obviously separated, so something broke the bond [between the steerer tube and fork crown]. Whether it was normal use or some overload condition, I really don't have the history to - but I can tell you that something, once the bond is broken, it's only broken once." See deposition of Robert Hinton, April 11, 2003, at 44 ("Hinton depo." attached hereto as Exhibit 12) (emphasis cited).

Plaintiff's third expert testified as follows:

- On your conclusions, you indicate "The cause of the accident was mechanical Q. failure, and not abuse or rider error." Do you base that conclusion on the fact that the separation occurred?
- That's right. Α.
- Solely on the fact that the separation occurred and nothing else? Q.
- Smoke's pouring out of the gun barrel. The gun was fired. Like that. A. See deposition of John D. Schubert, April 11, 2003, at 79-80 ("Schubert depo." attached hereto as Exhibit 13).

Thus, even after reviewing Plaintiff's experts' testimony, it is entirely unclear what the defect is that Plaintiff is alleging and whether it existed at the time he purchased the Bicycle. It is clear, however, that any opinion of alleged defects, whatever they may be, is based upon the mere fact that the event occurred. It is apparent that Plaintiff's experts presume a defect exists based upon the separation of the fork crown from the steerer tube, and then seek to blame the manufacturer and find a reason why the manufacturer should be liable. Plaintiff cannot rely on his experts' supposition that such a separation would not have occurred in the absence of a product defect. The first of the Harrison factors weighs in favor of Defendants and Third-Party Defendant.

Similarly, the second factor, that the accident occurred a short time after the sale of the product, also weighs in favor of Defendants and against inferring a defect from circumstantial evidence. It is not disputed that the incident occurred more than two years after Plaintiff purchased the bicycle; after

Plaintiff rode the bike dozens, if not hundreds, of times; and after having excessive repairs done to the bike.

Mr. Naoji Tanaka of SR Suntour, Inc. testified via affidavit that "SR Suntour has manufactured 8,000,000 forks using the same mechanical bond fit as that used in the SR Suntour Duo Track 7006 model." *See* Affidavit of Naoji Tanaka, attached hereto as Exhibit 14. Nonetheless, despite having 8 million products with the same mechanical bond, no expert in this case, nor any of the parties, are aware of <u>any</u> prior failures or recalls involving a similar Suntour product. As such, the third *Harrison* factor also weighs against inferring a defect based upon circumstantial evidence.

Finally, it is clear from the above referenced testimony from the Plaintiff's experts, that they have not eliminated other causes of the accident, such as misuse or abuse of the bicycle, and that this is not necessarily the type of incident that would only occur if a defect was present. As such, Plaintiff cannot infer that the product is defective merely because the incident occurred. Instead, Plaintiff bears the burden of establishing that this product was indeed defective, that Defendants and Third-Party Defendant caused or created the defect, and that the defect led to the alleged injuries. Plaintiff has not met this burden.

#### III. CONCLUSION

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Despite the conclusion of discovery in this matter, Plaintiff has failed to meet his burden of proof of an essential element of his claim. Specifically, while Plaintiff assumes the product was defective because the alleged incident occurred, he has failed to establish that the bond between the fork crown and the steerer tube was in fact defective at the time he purchased the bicycle. Furthermore, he has not attributed the defect to the Defendants as the facts equally support the contention that Plaintiff's own conduct or misuse of the product may have caused the alleged injuries. Instead, Plaintiff seeks to improperly infer that a defect existed merely because the incident occurred. Plaintiff has failed to make an affirmative showing sufficient to establish each element of his cause of action. Accordingly, for the

reasons set forth herein, as well as those stated in Third-Party Defendant's Cross-Motion for Summary Judgment on Plaintiff's Complaint, Defendants respectfully request that this Court grant summary judgment in favor of Defendants.

Respectfully submitted,

/s/

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Pacific Cycle, LLC

#### **CERTIFICATE OF SERVICE**

I HEREBY CERTIFY that on this 29<sup>th</sup> day of May 2003, a copy of the foregoing

Defendants/Third-Party Plaintiffs' Motion to Adopt Third-Party Defendant's Cross-Motion for

Summary Judgment of Plaintiff's Complaint and for Leave to File a Memorandum in Support thereof

and Pacific Cycle's and Toys "R" Us Memorandum in Support of Third-Party Defendant's Cross
Motion for Summary Judgment on Plaintiff's Complaint was sent via electronic filing as per notification
to be received from the United States District Court for the District of Maryland North Division.

	/s/	 	 	
Michele R. Kendus				

## **EXHIBIT 1**

```
Toys R Us to get a bike before you bought the Strike?
 1
                   I don't remember. I don't think so, but
 2
             Α
       I'm not a hundred percent positive on that.
 3
                   It may have been a surprise? Your mom
 4
       said, "Happy birthday. Let's go buy a new bike"?
 5
                   Usually she would say, "Let's go
 6
       somewhere," and then, you know, we look around. I mean
 7
       I would know what I'm going to get for birthday,
 8
                   She had me pick it out so this way she knew
 9
       Christmas.
       it would be the right size and that I liked it.
10
                   Do you know anybody who owns a Pacific
11
             Q
12
       bike?
<sup>-</sup> 13
             Α
                   No.
                   Had you ever known anybody else who owned a
14
             0
15
       Strike?
                         I never paid attention to other
16
             Α
                   No.
17
       people's bikes.
                    How frequently did you use this bike?
18
             0
                    I would say about three, four times a week.
19
             Α
20
                    How far would you go?
             0
                    Not far. I would usually ride around the
21
             Α
```

1	same area.
2	Q Tell me about the area you would ride
3	around in.
4	A In the court. It was a small court.
5	Probably not even a quarter mile. Not even close to
6	that. I mean just around the neighborhood. Altogether
7	where I would ride, if we do one circle, probably about
8	a a mile.
9	Q When you say one court around the
10	neighborhood, was it a residential neighborhood?
11	A Yes.
12	Q With houses?
13	A Yes.
14	Q So when you say you ride around the
15	neighborhood, you ride around the streets of that
16	neighborhood?
17	A Yes.
18	Q So the court you are talking about, I'm not
19	clear what you mean by court.
20	A There was a court there. Sometimes I ride
21	around the court if I didn't really feel like going

```
I just felt like riding my bike.
                                                     If I felt
1
      anywhere.
      like just riding out, just go around my neighborhood.
2
                  When you say "court," you mean like
 3
 4
      cul-de-sac?
                  Court as in the court the house was in, or
 5
            Α
      drive, if you will. I don't know --
 6
                   A street?
 7
            0
 8
            Α
                   Yeah.
                   You would ride around on the street?
 9
            0
                          It did just basically a square.
10
            Α
                   Yeah.
      We've always just called it the court.
11
12
                  How long would you be out there riding
      around the court, on average?
13
                   Court, maybe fifteen, twenty minutes.
14
            Α
                   What types of things would you be doing?
15
            0
16
            Α
                   Just riding.
17
                   Just going around in a circle?
            Q
                   Maybe go up and down the curbs, but those
18
            Α
      were rounded curbs. They were small. They weren't the
19
20
      ninety-degree high-angle curbs.
                   So you tried to do like wheelies off the
21
            Q
```

14

```
They replaced the tires, and they took out
 1
      inspection.
      the plastic cup holder and put a metal one in and just
 2
 3
      did a safety inspection on it.
                   Do you know exactly what they did?
 4
             Q
                   I don't know exactly what they did, no.
 5
             Α
      was -- the company was BikeLine.
 6
 7
                   Why did you do that?
             Q
                   Just safety because it was sitting in the
             Α
 8
 9
      garage all winter, and we have them do a safety check
               That's all.
10
      on it.
                   Where did you store the bike when you
11
             0
      weren't riding it?
12
13
                   In the garage.
             Α
                   Where in your garage?
             0
                   If you would walk in the garage, it would
15
             Α
             I either put it on the left or right side.
16
      be --
17
                   Would you hang it up on a hook or anything?
             Q
18
             Α
                   No.
                   Would you turn it upside down and hang it
19
             Q
      up from the ceiling at all?
20
21
                   No.
             Α
```

1	А	The kickstand broke on it.
2	Q	When did that happen?
3	A	Maybe about two weeks to a month after I
4	had it, and	during the inspection, BikeLine did replace
5	that too.	
6	Q	After the kickstand broke, did you take it
7	back to Toy	s R Us to try to get the kickstand replaced?
8.	А	No.
9	Q	How did it break?
10	А	The spring broke.
11	Q	You just put it down one day, and it didn't
12	work?	
13	A	Yeah.
14	Q	Did you ever fall off this bike before the
15	incident?	
16	А	No.
17	Q	Did you ever have any problems with the
18	pedals at a	11?
19	А	No. But I did take them off and put
20	different p	edals on. They had more grip to them.
21	Q	When did you do that?

```
Three months before the incident.
                                                        They had
1
             Α
                    Every now and then my feet would like
2
      better grip.
 3
      maybe slip off.
                   Did that ever cause you to lose control of
 4
             0
      the bike?
 5
 6
            A
                   No.
                   What kind of pedals were on there before
 7
             Q
 8
      you replaced them?
 9
             Α
                   Factory.
10
             Q
                   Plastic or metal?
                   Plastic.
11
             Α
12
                   Reflectors were in them?
             Q
13
                   Yes.
             Α
                   And when you replaced them, what did you
14
             Q
15
      put on?
                   They were aluminum pedals, and they had
16
             Α
      reflectors on them.
17
                   Where did you get those reflectors?
18
             Q
                   They came on the pedals.
19
             Α
                   Where did you get the pedals?
20
             Q
                   I believe it was BikeLine, but I might be
21
             Α
```

1 ,	A	Yes.
2	Q	Those had pretty good grip?
3	A	Yes.
4	Q	So your foot wasn't slipping off of those
5	at all?	
6	А	Correct.
7	Q	Did you replace any other components or
8	parts on th	e bike?
9	A	We had a cup holder replaced. The
10	kickstand.	Those two were done with the safety
11	inspection.	They replaced the front and rear tire with
12	new ones.	
13	Q	Why did they change the tires?
14	A	I mean just something to have done. Part
15	of safety.	Only reason you get your tires changed on
16	your car.	May not be bald, but you do it just to be
17	safe.	
18	Q	Were they getting was the grip getting
19	low?	
20	A	It wasn't low as you could barely see it.
21	It was stil	l plenty of grip on there. We were just
2		

1 doing it for safety reasons. 2 Did you ever have any problems with the 3 wheels or tires slipping? No. Α 5 Q Did you change anything else? 6 Α I believe they did change the seat because 7 it started wearing in the back. The back of the seat. 8 I don't know what the material is. Started wearing 9 out. The plastic. Was that on the top part of the seat? 10 0 11 Α The top part of the seat. Started wearing 12 out the hard plastic from the bottom. We just had the 13 seat replaced. 14 Like the part you were sitting on was kind Q of getting worn out? 15 16 Right. Α 17 Did that ever affect any of your riding at Q a11? 18 19 Α No. 20 Any other components that were changed? Q 21 The front free wheel. The rear spoke rim. Α

1	Q You say front free wheel. What is that?
2	A I'm not a hundred percent positive on. I
3	know that is what they fixed. I believe that is
4	because the front wheel had a quick release for you
5	know, throw it up on a bike rack on your car. So I do
6	believe that would be what is the free wheel part of
7	that. I put new brakes on.
8	Q Front or back?
9	A Both.
10	Q When was all this done in relation to when
11	you purchased the bike?
12	A It was after winter. I mean it was not
13	that far at all before the incident. It was right
14	after winter. I mean I never rode it in the winter.
15	It is too cold. Then we had the safety inspection on
16	it. I don't remember the relationship time. A lot of
17	that area is just a blur.
18	Q So the front free wheel, you think that is
19	related to the quick release somehow?
20	A I believe so, but I'm not a hundred percent
21	on that.

, 1 <b>1</b>	Q	You said they changed the spoke rim?
2	А	Yes.
3	Q	What is a spoke rim?
4	A	Just the rim with the spokes in it.
5	Q	Front or the back?
6	А	Back. Because I believe the free wheel is
7	the front r	im. I don't think it did say anything on
8	there about	that.
9	Q	On where?
10	A ·	On the receipt.
11	Q	Have you looked at that receipt recently.
12		(Lockwood Deposition Exhibit Number 1 was
13	marked by t	he reporter.)
14	А	Dirt Master
15	Q	Why don't you take a look at what we just
16	marked as E	xhibit Number 1. Tell me what that is.
17	А	That is a receipt from the safety
18	inspection	from BikeLine BikeTime.
19	Q	When was that the first time you saw this?
20	А	Today.
21	Q	So you saw it in preparation for your

1	Α	No.
2	Q	No specific reason you changed the rims?
3	A	No.
4	Q	No specific reason you changed the bottle
5	holder or c	up holder?
6	А	That was broken.
7	Q	How did that break?
8	А	It was plastic. It just broke. It was a
9	horrible cu	p holder. It didn't hold anything.
10	Q	Break from putting the bottle in and out?
11	Did it brea	k from the bike falling over?
12	А	It would have to break from the bottle
13	going in an	d out. I would usually get it when I was
14	riding.	
1,5	Q	What about the kickstand? Any reason you
16	had the kic	kstand replaced?
17	А	That broke.
18	Q	Would that hold the bike up at all?
19	A	Yes.
20	Q	Before you had it replaced, did the
21	kickstand w	ork at all?

1	A Just a little, yes.
2	Q When did you first notice that?
3	A I don't remember the time that I noticed
4	it. I just remember that, and that is when I said
5	something to my mom. That's when we got the safety
6	inspection done.
7	Q You noticed that before the safety
8	inspection was done?
9	A Right. I actually didn't think anything of
10	it really. Didn't think it was something that was a
11	big deal.
12	Q Describe that shake or shimmy to me a
13	little bit. What did you feel?
14	A That it would move slightly.
15	Q When you say "move slightly," would they
16	move left to right, or turn by themselves?
17	A Front to back. I mean only if you you
18	didn't have to use much effort at all. Just a little.
19	Go little bit forward and back.
20	Q So the handlebars would actually move
21	towards the front of the bike and then towards the back

11

14

17

18

21

```
1
      of the bike when you put a little pressure?
 2
                   Basically, if you put three-fourths of an
            Α
 3
      inch pipe inside of an inch pipe, it would -- I mean
      actually not even that much. Just moved just a notch.
 5
                  Move front to back or left to right?
            Q
 6
            Α
                   Front to back.
 7
            0
                  Wouldn't shift left to right at all?
 8
            Α
                  No.
 9
            Q
                   That's the reason you think you went to
10
      have a safety inspection done?
                        And just because the seat needed to
            Α
                  Yes.
12
      be replaced. Cup holder.
13
                  MR. SMITH: Do you want to take a break?
      Been going about an hour and a half.
15
                   (A recess was taken.)
16
            Q
                  You purchased this bike in May of -- it was
      1997?
            Α
                   '98.
                         '99 possibly. I don't know the exact
19
      date. I can't remember it. 5-22-97 and between June
20
      1st, 1997.
                  Sometime in late May of '97?
            Q
```

```
1
             Α
                   Right.
 2
                   Then in August of 1998 you had these --
             Q
      what you are calling a safety inspection done, right?
 3
                   Correct.
 4
             Α
 5
                   Approximately one year later?
             Q
 6
                   Correct.
             Α
 7
                   Did you ride the bike all through June of
             Q
       97?
 8
                           I still rode the bike.
 9
             Α
                   Yeah.
10
             Q
                   I'm talking about the year you purchased
11
      the bike.
                  That June, you rode it all that June?
12
             Α
                   Right.
13
                   All that July?
             Q
14
             Α
                   Right.
15
                   Did you ride it that August?
             0
16
                   I mean when it started getting cold, I
             Α
17
      didn't ride it.
                   Approximately when would you stop riding
18
             0
      the bike?
19
20
                   I don't know the approximate date.
                                                         When it
             Α
      would start getting cold out, I wouldn't.
21
```

```
So September, October?
1
            Q
 2
            Α
                   Yes.
 3
                   So you were riding the bike June, July
            Q
      August, September, October of 1997, correct?
 4
            Α
                   Not all the way through October.
 5
      got cold, I stopped.
 6
 7
                   So about four and a half months?
            0
                                                      Is that
 8
      fair to say?
 9
            Α
                   Yes.
10
                   You put it away for the winter?
            Q
                   Correct.
11
            Α
12
            Q
                   And after the wintertime, you say you took
      it right out, and you brought it over for your safety
13
14
      inspection, correct?
15
            Α
                   Correct.
16
                   Do you normally ride during the summertime?
            Q
17
            Α
                   Yes.
                   Did you ride -- do you know if you rode in
18
            Q
19
      June or July of the following year '98?
                   I'm sure I did. I mean I rode the bike all
20
            Α
21
      the time.
```

```
1
                   Did you ride the bike the summer before you
            0
2
      brought it to get the inspection done or the work done?
 3
            Α
                   Yes.
                   So you rode it several times before that?
 4
             Q
 5
                   Yes.
            Α
                   So -- maybe I misunderstand you. You put
 6
             Q
      the bike away for the winter?
 7
            Α
                   Correct.
 8
                   And then you took it out, and you brought
 9
             Q
10
      it right over to get the work done?
11
            Α
                   Correct.
                   Or did you ride it after you took it --
12
             0
                   We took it to get the safety inspection
13
             Α
14
      first.
                   Why don't you take a look at that invoice
15
             Q
      again, Exhibit Number 1. See the date there at all?
16
17
             Α
                   Okay.
                   What is that date?
18
             Q
             Α
                   8 - 29.
19
20
                   1998?
             Q
21
             Α
                   Yes.
```

1 Q Did you ride it at all June or July before 2 you had the inspection done? 3 Α I honestly don't recall. I really don't. 4 Q To your recollection, you took it after the 5 winter and brought it right over to get this work done? 6 Α Yes. We did have it inspected because I 7 noticed about the handlebar, the seat needed to be 8 done. 9 Q When did you notice the handlebar? 10 Α I don't know the exact date. 11 Was it before --0 12 Α A lot of that time is really a blur to me. 13 Was it before you put it away for the Q 14 winter? 15 Α I don't remember. I really don't. 16 So you rode the bike for about four and a Q 17 half months. You put it away for the winter, and you took it out and brought it out and took it over to 18 BikeLIne to have the work done? 19 20 Α Right. 21 0 After four and a half months of riding it,

1	A No. I mean the chain gets dirty, but that
2	is normal.
3	Q Do you know why they changed the free
4	wheel?
5	A I do not.
6	Q When you went there, did you tell them
7	about the handlebars coming loose?
8	A I told my mom about it. My mom talked to
9	them. I don't honestly know what was said.
10	Q Do you remember what your mom paid for the
1, 1	bike when she first purchased it?
12	A No.
13	Q Do you know what she usually paid for
14	bikes, approximately?
15	A No. When you are younger, 20 bucks is like
16	100 bucks. Nowadays it is nothing.
17	Q Other than the forks, was there any other
18	problems that you had, or anything that was changed
19	did any of that in any way cause the incident or affect
20	the bike at all during the time of the incident? In
21	other words, did you have a problems with the tires at

1 Α That was about the extent of my Yes. tricks that I knew how to do. 2 Kind of similar to the Ollie you were 3 Q talking about earlier, right, where you try to lift the 5 front wheel and then try to lift the back wheel 6 simultaneously? 7 Α Correct. 8 Q Would you jump off the curb to do that? 9 Α No. 10 How would do you it? 0 11 On a skateboard, yes. On a bike, just do Α 12 it on regular flat ground. 13 So what would you do? Q 14 Α You pull up the front wheel, and at the 15 same time you are pulling it up, once it is in the air, 16 you kind of push it down. You have to shift your body 17 weight, and it basically forces the back wheel to come 18 up also. 19 0 How high off the ground would you get the 20 front wheel? 21 Α Two inches.

1	Q How high would you get the back wheel?
2	A About the same. They were about the same
3	because basically when you do it, your front and back
4	wheel are at equal level pretty much the whole time.
5	Q Did you ever fall off the bike while trying
6	to do a bunny hop?
7	A Before the incident, no.
. 8	Q What do you mean before the incident, no?
9	A At the incident, I was told I honestly
1.0	don't remember the thing. I don't remember that point
11	of impact so to speak. From what I was told, I was
12	doing a bunny hop, and the front wheel came out. And
13	that's when everything else happened.
14	Q Who told you that?
15	A Jesse Wilcott.
16	Q We'll get back to that. So you other
17	than the incident, you had never fallen off the bike
18	while doing a bunny hop or anything?
19	A No.
20	Q When you bump up those curbs, you ever
21	A No.

# **EXHIBIT 2**

## IN THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF MARYLAND

WILLIAM LOCKWOOD

Plaintiff

v. Civil Action No. WMN-02-CV-2068

PACIFIC USA, LTD., et al.

**Defendants** 

#### ANSWERS TO INTERROGATORIES

Plaintiff, William Lockwood, by his attorneys, Michael P. Smith and Salsbury, Clements, Bekman, Marder & Adkins, LLC, in answer to the Interrogatories propounded to him by the Defendant, Toys "R" Us-Delaware, Inc., states as follows:

- A. The information supplied in these Answers is not based solely on the knowledge of the executing party, but includes the knowledge of the party's agents, representatives and attorney, unless privileged.
- B. The word usage and sentence structure is that of the attorney and does not purport to be the exact language of the executing party.
- 1. State your full name, address, date of birth, present marital status, and social security number.

**ANSWER:** William Thomas Lockwood; address: 14 Silver Fox Court, Cockeysville, MD 21030; DOB: 05/28/83; single; SSN: 215-31-6038.

2. State the date the bicycle referred to in the Complaint was purchased, who purchased it, where it was purchased, and whether the bicycle was assembled when purchased.

3. State the name, address and telephone number of the individual who assembled the bicycle and when the bicycle was assembled.

The Bicycle was assembled when purchased. Plaintiff is without **ANSWER:** knowledge or information as to whom exactly, other than an agent or employee of the Defendant Toys "R" Us - Delaware, Inc. ("Toys 'R' Us") assembled the Bicycle.

4. State whether the you inspected the bicycle prior to purchase, and if so, when you inspected it, and the results of your inspection.

Prior to the purchase, the Plaintiff only saw a display model. He did not see the assembled bicycle until after the purchase when he returned to the store to pick up the bicycle. At that time, he saw no apparent defects.

5. Identify with particularity whether any verbal or written instructions, warranties, or warnings were provided with the bicycle.

ANSWER: Any written instructions, warranties, or warnings provided with the bicycle were set forth in the Owner's Manual provided to Plaintiff after the purchase of the Bicycle. The Manual was attached to the bicycle handle bar. Plaintiff did not receive any additional verbal instructions, warranties, or warnings.

6. State in detail any repairs, changes or modifications made to the bicycle, including the nature of the work, the date performed and by whom, subsequent to purchase and prior to the alleged occurrence on June 7, 1999.

ANSWER: The Bicycle was inspected on 08/29/98 by the Bike Line of Bel Air, who also put on new tires, a front wheel, replaced a rim, replaced the seat and cup holder.

7. State the number of times you rode the bicycle prior to the occurrence on June 7, 1999, and whether you experienced any mechanical or other difficulties with the bicycle prior to the occurrence.

ANSWER: Plaintiff estimates that he rode the bicycle three (3) times a week, weather permitting. He had the front wheel replaced. The kick stand failed on numerous occasions, causing the bike to fall.

8. Give concise statement of the facts as to how you contend the occurrence took place.

ANSWER: The Plaintiff has no recall of the incident. It occurred on June 7, 1999, when he was riding a Pacific Cycle USA "Strike" mountain bike which had been manufactured by the Defendant, Pacific USA, and sold by Defendant, Toys "R" Us to the Plaintiff.

Plaintiff understands that while he was carefully and prudently riding the Bicycle, the S/R DuoTrack 7006 suspension fork separated at the point where the steering tube was inserted into the fork crown, causing William to lose control of the bicycle and to fall forward onto his face, severely injuring it, fracturing multiple teeth and inflicting other serious injuries.

9. State the names, addresses and telephone numbers of all eyewitnesses to the occurrence, and state their location at the time of the occurrence.

ANSWER: The following persons or entities witnessed, were present at, or have direct or indirect knowledge of the Incident: (a) Plaintiff, (b) Jesse Wolcott, 2042 Brandy Drive, Forest Hill, Maryland 21050, who was riding his bicycle with the Plaintiff, (c) the ambulance

)

personnel identified in the Ambulance Report, and (d) persons living in the vicinity of the place of the Incident (St Francis Drive).

State the names, addresses, and telephone numbers of all persons who arrived at 10. the scene within one hour after the occurrence.

**ANSWER:** See Answer to Interrogatory Number 9.

State the precise facts upon which you base your contention that the occurrence 11. was caused or contributed to by the negligence of this Defendant.

As discovery is still ongoing, Plaintiff contends that the Defendants were **ANSWER:** negligent in the following particulars:

- in designing, manufacturing and providing a piece of equipment of such a. construction that it could fail during normal foreseeable use;
- b. in failing to provide proper and clear warning of the dangers that the suspension fork might suddenly and unexpectedly separate from the bicycle, causing the rider to lose control and to fall;
- in manufacturing and providing a mountain bike that had a suspension c. fork that was improperly manufactured, and capable of separation;
- d. in failing to use available design and engineering skill or knowledge to produce a suspension fork that would not separate;
- in failing to provide adequate operating instructions and warnings to users e. of the product even though Defendants knew or should have known that such warnings were necessary for the safe use of the product;
  - f. in failing to adequately inspect and test the product for safety prior to

offering it for sale;

- g. in failing to discover that the product was dangerously defective, improperly designed and manufactured, inadequately tested and inspected, entirely unfit for duty and unsafe for use, constituting a hazard to the user;
  - h. in other respects to be proved at trial.

This Answer may be supplemented with expert testimony. See Reports signed by John D. Schubert, Robert W. Hinton, Ph.D., and James Green, P.E., DEE. and produced to the Defendants on or about August 29, 2002.

12. If you have ever pleaded guilty to or been convicted of any crime (other than minor traffic violations), state the nature, place and date of same, the court docket reference and whether you were represented by counsel.

**ANSWER:** The Plaintiff has not.

13. State the names, addresses and telephone numbers of all persons who investigated the cause and circumstances of the occurrence.

ANSWER: My attorney Michael P. Smith, Salsbury, Clements, Bekman, Marder & Adkins, along with their agents, servants and employees.

14. State the names, addresses and telephone numbers of all persons from whom you have signed or recorded statements, attaching to your answer a copy of any such statement in your control given by this Defendant, or any agent thereof.

**ANSWER:** Jesse Wolcott, 2042 Brandy Drive, Forest Hill, Maryland 21050.

15. State whether you have in your possession or control photographs, objects, plats or diagrams of the scene of the occurrence, the bicycle, or personal injuries sustained by you,

and, if so, identify and describe them.

Plaintiff has in his possession or control the following photographs, ANSWER: objects, plats or diagrams of the scene of the occurrence, the bicycle, or personal injuries sustained by you (a) photographs taken by Michael Bonicker and presently in the possession of Plaintiff's counsel of the Bicycle and of Plaintiff; (b) photographs by James Green, P.E., DEE. contained in his Report produced to the Defendants on or about August 29, 2002; (c) slides presently in the possession of Plaintiff's counsel taken by Michele Shermak, M.D. of Plaintiff's injuries; and (d) photographs of Plaintiff in the Plaintiff's possession

State whether the bicycle was repaired following the occurrence, and if so, who 16. performed the repairs and the nature of the work done.

**ANSWER:** The Bicycle was not repaired following the occurrence.

17. State the current location of the bicycle.

The Bicycle is presently in the office of Michael Smith, 300 W. Pratt **ANSWER:** Street, Suite 450, Baltimore, Maryland 21201.

State the content of, date made, and the person to whom this Defendant or anyone 18. on this Defendant's behalf made any statement which you contend constitutes an admission with respect to any of the issues raised in this case.

Plaintiff makes no such contention regarding admissions at this time. ANSWER:

If you contend that a person not a party to this action acted in such a manner as to cause or contribute to the occurrence, give a concise statement of the facts upon which you rely.

Plaintiff makes no such contention at this time. ANSWER:

20. State with precision the nature and location of all bodily injuries suffered by you

The Plaintiff sustained bilateral LeFort facial fractures as well as a ANSWER: complex mandibular symphyseal fractures with cortical bone loss and the loss of teeth nos. 8, 9, 22 - 27 (his upper and lower jaws were fractured, teeth broken or lost). Plaintiff's tongue was sliced, and his nose was broken. Defendant is also referred to the medical records, detailing these injuires.

Plaintiff has permanent nerve damage in his face; he has TMJ; he suffers from headaches and jaw pains; he experiences pains in his ribs, back, knees, arms, wrists and elbows; and he has distorted vision in his right eye.

Plaintiff will supplement this answer as to permanency through the reports of his treating health care providers.

21. State whether you were hospitalized as a result of the occurrence here involved and, if so, state the name and address of the hospital, dates of hospitalization, the nature and. scope of treatment received, and the names and addresses of the doctors rendering same.

ANSWER: (1) Johns Hopkins Bayview Medical Center. Admitted 06/07/00-06/15/99 for treatment of injuries sustained as a result of this occurrence, 06/30/99-07/01/99 for realignment of mandibular fracture, 07/13/99 - 07/13/99 for debridement of gingival wound, 08/10/99 for arch bar removal. Also seen through the clinic in 1999. (2) GBMC. Admitted 4/6/00 for extraction of wisdom teeth and bone graft to mandible. (3) Defendant is also referred to the medical records, regarding dates of hospitalization, the nature and scope of treatment received, and the names and addresses of the doctors rendering same.

22. State the names, addresses and telephone numbers of all doctors or physicians who have examined or treated you as a result of the occurrence here involved, the dates of said examination or treatment and the nature and purpose therefor.

ANSWER: Other than those names in Answer to Interrogator Number 21:

Michael Linnan, DDS. Treated 09/28/99 - 04/17/01. Seen for repair of broken teeth

HomeCall. Received home care in 1999.

Michael Schwartz, DDS. Seen for evaluation and treatment of maxilla and mandible 1999 to the present

Richard Bombach, M.D. Seen for pre-op physical 10/22/99 & 03/29/00.

Charles Mann M.D.

Dr. Goldman (psychologist)

23. State whether you have ever had or suffered from any disease, sickness, infirmity (other than of a routine nature) or personal injury other than sustained in the occurrence here involved. If so, describe the disease, infirmity, injury, etc. and state how and when received, and the name and address of the person causing the same, and the doctors or hospitals which examined or treated you therefor.

Plaintiff has not. **ANSWER:** 

24. State the names, addresses, and telephone numbers of all health care providers who have seen, examined, and or treated you during the three years prior to the occurrence, and state the dates and reasons for the examination or treatment.

Alan Davick, M.D., 2324 Joppa Rd., Joppa Green, Ste. 220, Lutherville. ANSWER: MD 21093. (General check-ups)

Clarence Gehris, M.D., 2112 Belair Rd., Fallston, MD 21047 (Allergies)

25. State the names and addresses of all physicians and / or other experts whom you propose to call as witnesses and state the nature of their specialty; the subject matter on which each expert is expected to testify; the substance of the facts and opinions to which the expert is expected to testify; and the grounds for each opinion. Attach to your answers copies of all written reports received from same and copy of a current curriculum vitae.

ANSWER: The Defendant is referred to Plaintiff's Rule 26(a)(2) Expert Witness Disclosures in accordance with the Scheduling Order on or about August 29, 2002.

26. Itemize in detail all expenses and monetary losses or damages resulting from the occurrence.

ANSWER: No answer is required to this Interrogatory as only 25 interrogatories are permitted under Fed. R. Civ. P. 33(a).

)

27. State the name, address and telephone number of any person not otherwise mentioned in answer to these Interrogatories who has personal knowledge of facts material to this case.

ANSWER: No answer is required to this Interrogatory as only 25 interrogatories are permitted under Fed. R. Civ. P. 33(a).

28.. State whether you have ever been involved as a complaining party in any other claim for personal injuries or property damage. If so,, state the date of each claim, the place where it occurred, nature of the claim and the names and addresses of the other parties.

ANSWER: No answer is required to this Interrogatory as only 25 interrogatories are permitted under Fed. R. Civ. P. 33(a).

29. State the names, addresses and telephone numbers of all your employers for the past ten years, if any, the nature, dates and average weekly wages of each employment and the reasons for termination thereof, together with the dates and wages of any employment losses as a result of this occurrence.

No answer is required to this Interrogatory as only 25 interrogatories are ANSWER: permitted under Fed. R. Civ. P. 33(a).

State the amount of earned income reported by you each year on your federal 30. income tax returns for the last five years.

No answer is required to this Interrogatory as only 25 interrogatories are permitted under Fed. R. Civ. P. 33(a).

31. State whether you are presently under the care of a doctor, physician, or other health care provider or are receiving medical health attention or treatment from any person and, if so, state the name, address and telephone number of same and date of the last visit for treatment and / or examination.

No answer is required to this Interrogatory as only 25 interrogatories are permitted under Fed. R. Civ. P. 33(a).

32. State the nature, amount and time of consumption of any alcoholic beverages. medications, or drugs consumed or taken by you within an eight hour period prior to the occurrence, the address of the place where you consumed any such alcoholic beverages. medications, or drugs, and the name, address and telephone number of any person or persons who were with you at the time of any consumption.

No answer is required to this Interrogatory as only 25 interrogatories are ANSWER:

permitted under Fed. R. Civ. P. 33(a).

I DO SOLEMNLY DECLARE AND AFFIRM under the penalties of perjury that the contents of the aforegoing Answers to Interrogatories are true and correct to the best of my knowledge, information and belief.

PAUL D. BEKMAN

MICHAEL P. SMITH

SALSBURY, CLEMENTS, BEKMAN,

MARDER & ADKINS, L.L.C.

300 W. Pratt Street

Suite 450

Baltimore, Maryland 21201

(410) 539-6633

Attorneys for Plaintiffs

# IN THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF MARYLAND

WILLIAM LOCKWOOD

Plaintiff

V.

Civil Action No. WMN-02-CV-2068

PACIFIC USA, LTD., et al.

Defendants

**CERTIFICATE OF SERVICE** 

I HEREBY CERTIFY that on this 15th day of October, 2002, a copy of the aforegoing Answers to Interrogatories propounded to Plaintiff, William Lockwood, by Defendant, Toys "R" Us-Delaware, were mailed first class, postage prepaid

Michele R. Kendus Venable, Baetjer & Howard, LLP 1800 Mercantile Bank & Trust Bldg. Two Hopkins Plaza Baltimore, MD 21201-2978 Attorneys for Defendant, Pacific USA, LTD and Pacific Cycle, LLC

Dan Moore Moore & Jackson, LLC 305 Washinton Avenue, Ste. 401 Towson, MD 21204 Attorneys for Defendant, Toys "R" US-Delaware, Inc.

MICHAEL P. SMITH

# **EXHIBIT 3**

1	know.
2	Q That was the front wheel or back wheel?
3	A I don't know. I don't remember anymore.
4	Q Were there any problems with any of the
5	components before he changed them?
6	A No. There wasn't anything wrong with them.
7	He is just spoiled.
8	Q So he was never involved in any kind of
9	incident that required any kind of change or repair?
10	A No.
11	Q Do you recall what you initially paid for
12	the bike?
13	A I would say probably somewhere between 149
14-	and 189. Somewhere in that range because I remember
15	thinking that the cost of BikeLine I probably should
16	have just bought him a new one.
17	Q My next question was why did you spend so
18	much to repair you spent \$125 to repair a \$150 bike.
19	A I didn't know it was going to be that much
20	I really wasn't planning on buying a seat and changing
21	this and doing all that. When we went in, I just

2

3

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really wanted them to check it and make sure it was safe because I know I wasn't buying him another one. That he would have to have this one for a while. At this point in time, do you know how long Q you had owned the bike? We bought the bike in May, and this Α Yeah. was October or August or something like that. I don't remember. What was the date on here? August 29th. Yeah. So it would be end of summer I had Α it checked out, but actually it was a year later because I got his bike in I think -- I guess it was I don't remember. 97. I think the interrogatory response indicated it was '97 that you purchased the bike. I thought it was '97. Right. It would have had to have been because -- right. Did you get the safety inspection done 0 right before he was going to ride it for the season? It was actually the end of the season, and Α I knew it was going to be going in the garage for the

**EXHIBIT 4** 

Page 31 1 neighborhood? 2 Α. I went to skate parks in New Jersey, Pennsylvania, Ocean City, Florida, all 3 kinds of places. 4 Did he ever go with you? 5 Yes, but he would just kind of ride 6 Α. around in the skate park. He wouldn't attempt 7 8 anything big. Like I said, riding up and down 9 the ramps, that's pretty much it. Did he stop to watch you a lot? 10 Ο. 11 Α. We'd pretty much do our own thing. Okay. How about with the bikes, what 12 0. did you see Bill do with the bikes as far as 13 14 tricks? Bill didn't really use his bike. 15 16 explained on the phone to you, I know, he had a mountain bike and you can't really do anything 17 with it because it's so heavy. And he had a 18 mountain bike with front shocks which makes it 19 even worse because those things weigh a ton. 20

the most he could do was do a little bunny hop

21

		Page 32
1	or do a	wheelie or ride off of a curb. And not
2	even a b	ig wheelie because you can't get the
3	bike up,	it's too big.
4		Now, I had the trick bike and I was
5	doing al	l the crazy stuff while he was riding
6	along.	
7	Q.	Did you only know Bill to ever have one
8	bike?	
9	Α.	As far as I can remember he had the
10	Pacific,	which is only two years, but, I'm
11	almost p	ositive he had the Pacific the whole
12	time.	
13	Q.	You don't remember any bikes prior to
14	the Paci	fic?
15	Α.	No.
16	Q.	Okay. What kind of tricks would you do
17	on your	bike?
18	Α.	Grinding, ramps, rails.
19	Q.	You rode on the rails?
20	Α.	Yeah.
21	Q.	Wow.

Page 83 1. How did you know he was going to 0. 2 jump it? 3 He had been jumping it. Α. He had been jumping it? 4 Q. 5 Α. He had been jumping manhole covers. 6 Like I said, he never quite cleared it, 7 always about an inch behind, his back wheel would touch down right at the end of the 8 9 manhole cover. 10 So you knew this particular cover Q. 11 was coming up? 1.2 You can see them on the road. Α. 13 There's several of them on St. Francis Road 14 and there's several of them, it's like a line going down the road. And he had jumped one 15 16 or two of them. So I figured he was going to 17 jump this one too, and I watched him. That's why I was pretty much in back of him, I was 18 19 watching him do it, I know how to jump things and I can usually give people tips. 20 Is that why you were in back of him, 21 Q.

	Page 84
1	giving him tips?
2	MR. SMITH: Objection.
3	A. Not consciously. If that makes any
4	sense. I was observing. He didn't ask me
5	to. There was none of that. I was just kind
6	of doing it, that's what I did.
7	Q. Okay. How high from, is this
8	manhole cover level with the pavement?
9	A. Yes.
10	Q. So he's just popping his bike up
11	over it?
12	A. Pretty much.
13	Q. And he had been doing that all the
14	way down the street?
15	A. Not every time, there was a lot of
16	manhole covers, though.
17	Q. Did you watch every time he did it?
18	A. Yeah.
19	Q. Yeah?
20	A. Yeah.
21	Q. So your memory is that you actually

## **EXHIBIT 5**

# R. W. HINTON ASSOCIATES METALLURGICAL CONSULTANTS

Metallurgical Engineering
Specifications
Failure Analyses
Corrosion Solutions

5436 Spring Drive Center Valley, PA 18034-9300 610-967-2797 Fax 610-965-3583 E-mail: rwhinton@fast.net

101-SCBMA-Opinions Bicycle Steerer Tube Connections-Lockwood v. Pacific Bicycle, et al August 20, 2002

Mr. Michael P. Smith, Esq. Salsbury Clements Bekman Marder & Adkins, L. L. C. 300 West Pratt Street Suite 450 Baltimore, MD 21201

Re: Lockwood v. Pacific Cycle, et al WMN-02-2068 (Steerer Tube Connection)

Dear Mr. Smith,

After examining the Pacific Cycle manufactured bicycle in question at Mr. John Schubert's office earlier this year, I have the following technical opinions concerning the mechanical reliability and safety of the steel steerer tube connection:

- 1. The thin-walled, hollow-steel, steerer tube was mechanically press-fit and possibly thermally interference fit into the steerer tube fork crown. (Thermal expansion coefficients and elastic moduli of both steel and aluminum alloys are attached.) R. W. Hinton saw no evidence of either a welded joint or a chemically bonded joint.
- 2. The fork crown into which the steerer tube was inserted appears to be made of a nonferrous (non-steel) alloy such as, an aluminum alloy. The elastic gripping force of an aluminum alloy fork crown provides one-third the elastic gripping force of a steel fork crown of the same size.

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- 3. In addition, an even weaker gripping force between the thin-walled hollow steel steerer tube, and the nonferrous alloy fork crown would be expected because the thin hollow tube yields (elastically) in compression. (Mechanical and physical properties of carbon steel and aluminum alloys are attached.)
- 4. No safety device or retightening device was found on the steerer tube fork crown to prevent the steerer tube of the bicycle from pulling out when the tube-to-fork crown mechanical bond becomes loose and the fork crown is worn from normal use. (A graph is attached that shows wear resistance of nonferrous alloys relative to American Iron and Steel Industry [AISI] 1010 sheet steel.)

In summary, the press-fit and /or the thermal interference fit between the thin-walled hollow steerer tube and the nonferrous (aluminum alloy) fork crown of the bicycle in question is inadequate, unsafe, and cannot be retightened or inspected.

As requested earlier of the manufacturer, dimensions (engineering drawings) and manufacturing specifications including the specified materials of construction would be required to further analyze the intended engineering and safety of this bicycle. In addition, a desired destructive test to determine the hardness and composition of the steerer tube and fork crown would enhance and make specific the engineering analyses contained herein.

The enclosed R. W. Hinton engineering analyses and resulting opinions are expressed to a reasonable degree of engineering certainty. If more information becomes available, R. W. Hinton will supplement this preliminary report.

Sincerely yours,

Robert W. Hinton, Ph. D., PE

# Table A-7 PHYSICAL CONSTANTS OF MATERIALS

	Modulus o	of elasticity, E	Modulus	Modulus of rigidity, G	£	ū	Unit weight, w	u:16 <b>≥</b>
Material	Mpsi	GPa	Mpsi	GPa	roisson's	lb/in³	lb/ft³	kN/m³
Aluminum (all alloys)	10.3	71.0	3.80	26.2	0.334	0.098	169	36.6
Beryllium copper	18.0	124.0	7.0	48.3	0.285	0.297	513	9.08
Brass	15.4	106.0	5.82	40.1	0.324	0.309	534	83.8
Carbon steel	30.0	207.0	11.5	79.3	0.292	0.282	487	76.5
Cast iron, gray	14.5	100.0	0.9	41.4	0.211	0.260	450	70.6
Copper	17.2	119.0	6.49	44.7	0.326	0.322	556	87.3
Douglas fir	1.6	11.0	9.0	4.1	0.33	0.016	28	4.3
Glass	6.7	46.2	2.7	18.6	0.245	0.094	162	
Inconel	31.0	214.0	11.0	75.8	0.290	0.307	530	83.3 HM
Lead	5.3	36.5	1.9	13.1	0.425	0.411	710	
Magnesium	6.5	44.8	2.4	16.5	0.350	0.065	112	
Molybdenum	48.0	331.0	17.0	117.0	0.307	0.368	636	100.0
Monel metal	26.0	179.0	9.5	65.5	0.320	0.319	551	9.98
Nickel silver	18.5	127.0	7.0	48.3	0.322	0.316	546	85.8
Nickel steel	30.0	207.0	11.5	79.3	0.291	0.280	484	76.0
Phosphor bronze	16.1	111.0	6.0	41.4	0.349	0.295	510	80.1
Stainless steel (18-8)	27.6	190.0	9.01	73.1	0.305	0.280	484	16.0
				-				

J.E. Shigley Methomical Engineering Deergin 2505 ( M. C. 1)-11 Done

PAGE

### Linear Thermal Expansions of Metals and Alloys

THE NUMBERS in this table have been collected from the numerous articles and data sheets that record in detail the properties of metals in this Handbook. The values are collected here for the reader's convenience in making general comparisons. For more specific information concerning the expansion of SAE steels, the table

on page 309 should be consulted. Additional data for nonferrous metals and alloys will be found under item D6 in the data sheets. Values given here are for as-cast, as-wrought or as-annealed material. The effects of thermal treatment, temperature range and other factors are indicated in the various places mentioned above.

Met		Temperature, deg Cent	Coefficient of Expansion per deg Cen			Temperature, deg Cent	Coefficient of Expansion per deg Cent	
ch/Dv2	Aluminum and Aluminum and Aluminum (99.95%)		× 10-4 23.9		Iron and Iron See also page			
25 9 38 1 118 5	Vrought 9.0 Al 2. Mn 5 Cu, 0.5 Pb, 0.5 Bi 4 Cu, 0.8 St, 0.8 Mn, 0.4 Mg. Cu, 0.5 Mn, 0.8 Me.	20 to 100 20 to 100 20 to 100 20 to 100	23.5 23.2 22.9 22.5 23.0	+ -0.22% 0.40% Low alley 0.58%	000000	20 to 100 20 to 100 20 to 100 20 to 100	11.7 11.3 11.0	5x12 66
24 S 4 25 S 4 32 S 1 A61 S 1 63 S 2 52 S 1	Cu, 2 Ni, 0.5 Mg 5 Cu, 1.5 Mg, 0.6 Mn 5 Cu, 0.8 Mn, 0.8 Si 2.5 Si, 1.0 Mg, 0.9 Cu, 0.9 Ni 0 Si, 0.6 Mg, 0.25 Or 5 Mg, 0.25 Or	20 to 100 20 to 100 20 to 100 20 to 100 20 to 100	22.4 22.8 22.8 19.4 23.1 23.8	1.97% 2.24% 3.86% Inver Fe, 35 Ni 13 Mn, 1.2 C	0000	20 to 100 20 to 100 20 to 100 20 to 100 rt	10.8 10.1 9.9 9.6 8.6 0 to 2 18	-6/-
075 768 5 43 5	2 Mg, 0.1 Mn, 0.1 Cr 0 Mg, 0.6 Sl, 0.25 Cu, 0.25 Cr 5 Zh, 2.5 Mg, 1.5 Cu ast Si Cu, 3 Si	20 to 100 20 to 100 20 to 100	22.8 24.3 23.5 23.2 22.0	17.7 Or, 9.6 NI, 0.06 18 W, 4 Or, 1 V	č.	. 20 to 100 . 20 to 100-9,2) . 0 to 100	$\begin{array}{c} -10.0 \\ 9.8 - 5 \\ 10 - 16.5 \\ 11.2 - L \\ 10.5 \\ 12 \end{array}$	4×10 6
122 10 142 4 196 4. 214 3. 220 10	Ou, 2 Si, 1.7 Zn ) Cu, 0.2 Mg Cu, 2 Ni, 1.5 Mg 5 Cu 8 Mg	20 to 100 20 to 100 20 to 100 20 to 100 20 to 100	22,0 22,0 22,0 22.5 23.0 24,0	Hard Lead 96 Pb. 4 Hard Lead 94 Pb. 6 8% Antimorial Lead	Lead and Lead	. 17 to 100 . 20 to 100 . 20 to 100 . 20 to 100	29.3 28.8 27.8 27.2	
356 5 56 7 A108 5. A132 12	81, 1.3 Cu, 0.5 Mg 81, 0.3 Mg 5 S1, 4.5 Cu 81, 2.5 Ni, 1.2 Mg, 0.8 Cu 5 Cu, 2.5 Si 5 Si, 1 Cu, 1 Ni	20 to 100 20 to 100 20 to 100	24.5 23.0 21.5 21.5 19.0 22.0	Grid Metal 91 Pb, Lead-Base Babbitt Lead-Base Babbitt Tin-Lead Solder 95 Tin-Lead Solder 80	1 92 Pb, 8 Sb. 9 Sb. 80 Pb, 15 Sb, 5 Sn. 75 Pb, 15 Sb, 10 Sn. Pb, 5 Sn. Pb, 20 Sn. b, 50 Sn.	. 20 to 100 . 20 to 100 . 20 to 100 . 15 to 110	36.7 26.4 24.0 19.6 28.7 26.5	
85 B	51, 4 Cu	20 to 100 20 to 100 20 to 100 20 to 100	23.1 20.0 21.0 23.7 19.5	Magn	esium and Magnes .80%) (4)	dum Alloys (4)	23.4 26	
Deoxidize	Copper and Copper cer	20 to 100	16.5 17.7 17.7	Cast Nickel 1.6 Si, 0 "Z" Nickel 4.5 Al Monel 30 Cu 14 Fe	(1 + Co) + Co) 0.5 Mn, 0.5 C	0 to 100 25 to 100 25 to 100 0 to 100	13.3 13.3 13.0 13.0	
Gilding M Commerci Red Brass Low Brass Cartridge	nght ctal, 95% al Bronza, 90% , 85% , 80% Brass, 70%	20 to 300 20 to 300	18.1 18.4 18.7 19.1 19.9	"S" Monel 30 Cu, 4 Cast Monel 32 Cu, 1 Hastelloy A 20 Mo, Hastelloy B 30 Mo, Hastelloy C 17 Mo	Si, 2 Fe	25 to 100 21 to 100 25 to 100 0 to 100 0 to 100	14.0 14.0 12.2 12.9 11.0 10.0	
Leaded Co Low-Load High-Lead Pres-Outt Leaded M	mmercial Bronze ed Brass ed Brass ng Brass	20 to 300 20 to 300 20 to 300 20 to 300	20.8 18.4 20.2 20.3 20.5 20.8	Inconel 14 Cr. 6 Fe. Ohromel A 20 Cr. Nichrome 24 Fe, 16 Ohromax 50 Fe. 15	Si, 3 Ou Cr Or	0 to 100 0 to 100 70 to 1000 20 to 1000	11.3 11.0 11.5 17.8 17.0 15.8	•
Architectu Admiralty Naval Bra	rai Bronze Metal	. 20 to 300 . 20 to 300 . 20 to 300 . 20 to 300	20.7 20.9 20.2 21.2 21.2	Pure Tin	Tin and Tin A	1loys 0 to 100	18.8 23.0 21.6 24.7	
Phosphor Phosphor Phosphor Phosphor Cupro-Nic	Brass Brass Bronze, 1.25% (E) Bronze, 5% (A) Bronze, 8% (C) Bronze, 10% (D) kel, 30%	20 to 300 20 to 300 20 to 300 20 to 300 20 to 300	18.5 17.8 17.8 18.2 18.4 16.2	Pure Zinc	Zine and Zine A Mg 0.04 Mg ne 99 Zn, 0.08 Pb	lloys 20 to 250	39.7 27.4 27.4	
Silicon Br Aluminum Beryllium	kel, 30%  er, 18% (A)  er, 18% (B)  nnze, Type A  nnze, Type B  Bronze, 8%  Copper	20 to 300 20 to 300 \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	16.7	Commercial Rolled 21	ne 0.08 Pb, 0.08 Cd ne 0.3 Pb, 0.3 Cd	20 to 40 20 to 40	32,5(b) 23,(c) 32,5(b) 23,(c) 33,9(b) 23,4(c)	
Cast	Bronze	21 4- 000	18.5	Cadmium	liscellaneous Pure		29.8	
Punce Mer aded Ye th Strer	a Bearing Bronze ial llow Brass igth Yellow Brass nganese Bronze Bronze (89-1-10)	. 21 to 177 . 21 to 204 . 21 to 280	18.0 19.1 21.6 10.8 20.6	Ontomium Oobalt Gold Molybdenum		20 20 to 100	29.8 6.2 12.8 14.2 4.9 19.7 4.3	

(a) For compositions of copper alloys, see page 24. (b) With the grain. (c) Across the grain. (d) Approximately the same for all commercial magnesium alloys.

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ASMENT	ASMITH'S 18456 1961.					
Material:	Material: Carbon steels (AISI)				•	
	(women)		, 25°	ナング	8	600
2007		Hot-rolled	321MP4"	225 mpd	7×4 X	12°
		Hot-rolled	355	236	031	; <del>~</del>
		Hot-rolled	358	266	951	;
1006	85 HB	Hot-rolled	318	248	1	3 2
	85 HB	Hot-rolled	318	248		2 22
(	85 HB	Hot-rolled	318	248 (36kz)		2 2
2008	82/99 HB	Hot-rolled	363	253	808	<i></i>
5101	80 HB	Normalized	415	227	725	. 89
1018	106 HB	Qī	354	250		•
	118HB	QT	496	290	8/9	
(	209 HB	Hot-rolled	969	572	741	
1020	108 HB	Annealed	392	254	198	25
1	105/109 HB	Hot-rolled	441	260	713	. 19
1025		Hot-rolled	547	306	33.	29
		Hot-rolled	266	387	08	57
1030	128 HB	Hot-rolled	454	289	26	50
	128 HB	Hot-rolled	454	289	2	29
1035	•	Hot-rolled	476	250 7	51	

MP4 + 6.9 = Kai (1000ps. tensile Vieldshensth - Whimato tensilos bang

RA - Percent reduction in area before that tune of tensile to

Table 2 Minimum tensile properties of selected aluminum casting alloys

			Tensile nonnerties	Hise		
		Militare				
	Strength	tensile strength	enøth		Tensile	
Alloy	class	MPa	ksi (laeaps;)	MPa	ksi (1000/lt.)	Elongation,
A356-T6(a)		696	20.0			2
•	2	275	38.0 40.0	193 265	28.0	5
A357-T6(a)		310	45.0	241	30.0 35.0	m i
	2,	345	50.0	275	33.0 40.0	<b>m</b> (
D357-T6(b)	Nondesignated	310	45	248 248	36	n c
A 201-1776)	Designated	345	20	275	40	۷ ۳
11=01-11(d)	- (	4I3	60.0	345	50.0	) M
B201-T7(c)	Nondesignated	385	90.0 \$6	345	50.0	Ŋ
	Designated	413	88	345	48 05	7 6
(a) Per MIL-A-21	(a) Per MIL-A-21180 (b) Per AMS 4241 (c) Per AMS 4243	YCV DYLY JOB (J)	c		·	<b>)</b>
		+7+ CIVID 1-1(J)	7			

# **EXHIBIT 6**

John Schubert 5996 Beverly Hills Road Coopersburg PA 18036-2603 610/282-3085; fax 282-2432; Schubley@aol.com

August 28, 2002

Michael P. Smith Israelson, Salsbury, Clements & Bekman, L.L.C. 300 W. Pratt Street, Suite 450 Baltimore, MD 21201

RE: Johnson v. Pacific Cycles
Preliminary Expert Report

Dear Mr. Smith:

As per your request, I have examined the Pacific Cycles "Pacific USA Strike" bicycle which was involved in an accident involving a teenage rider named William Lockwood.

Herewith is my preliminary report in this case. As always, should there be further Discovery information that is relevant, I reserve the right to supplement this report.

#### Description of the Accident

I understand that Mr. Lockwood was riding his bike during daylight hours on June 7, 1999 when the steerer tube separated from the fork crown. As is typically the case when such separation occurs, the rider was thrown forward and he sustained serious injuries.

Mr. Lockwood was riding with a friend on a local street. He had lifted his handlebars to clear a manhole cover, in a maneuver called a "bunny hop," and when he landed after the bunny hop, the front of the bike collapsed underneath him. He went down and landed on his face.

#### The cause of this accident

After the accident, the bike was recovered with the front fork having fallen off of the bottom of the steerer tube. When Mr. Lockwood lifted up on the bike, the front fork and front wheel became unattached from the rest of the bike and fell off, thereby causing the crash. Without a front wheel, the bike was uncontrollable. The front of the bike would fall away underneath the rider, and the rider's momentum would carry him forward as the bike crashed and skidded to a stop on the ground.

The front fork was supplied by a vendor named SR, model name Duotrack 7006.

Specifically, the part that failed was the joint between the fork crown and the steerer tube.

I will explain in this report the following topics:

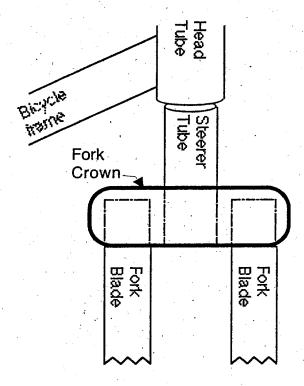
- What the pieces are and what they do.
- Why this separation was a cause, and not a result, of the accident.
- Why separation of the fork from the rest of the bicycle is completely unacceptable in standard industry practice.

Alternate designs for the steerer tube/fork crown junction with a far superior safety record.

#### What the pieces are and what they do:

While there are only two pieces of metal involved in this failure, I want to quickly illustrate the larger mechanism, so the reader will understand what is being described.

Look at the illustration below:



The fork blades are the pieces that extend downward to meet the front wheel hub, and they are the parts people think of when they think of the fork.<sup>1</sup>

The fork crown exists to attach the steerer tube to the fork blades.

The steerer tube is normally invisible. It is inside the bicycle frame's head tube.

On the Pacific USA Strike bicycle involved in Mr. Lockwood's accident, the steerer tube was made from steel and the fork crown was a nonferrous metal (almost undoubtedly aluminum).

#### Why this separation was a cause, and not a result, of the accident:

Occasionally, one encounters accidents in which damage to the bike was a result of an accident already under way, as opposed to a mechanical failure that caused the accident. The physical evidence on Mr. Lockwood's bike shows that this was a mechanical failure that caused the accident.

<sup>&</sup>lt;sup>1</sup>The bicycle in this accident had a suspension fork, which essentially means that the fork blades were telescoping, and spring-loaded. The suspension mechanism did not play a role in the failure of the fork crown/steerer tube joint. The suspension mechanism looks complex, and it is visually distracting. I mention it only to advise the reader to ignore the visual distraction.

There is no significant damage to the bike other than the separation of fork crown from steerer tube, and the pieces that were separated show no signs of bending or scrape marks that would have resulted from an impact strong enough to destroy this joint. (Moreover, as I will explain below, the industry standard is to make this joint as strong as or stronger than the surrounding metal pieces.)

While Mr. Johnson's bicycle showed signs that it was well used, it was not abused or kept in an unsafe condition. The most-worn parts of the bike were the tires, the pedals, and the braking surfaces on the front wheel rim-all indications of normal use. The wheel rims were out of true (I estimate 3 mm for the front rim and 5 mm for the rear rim), which is a normal maintenance item for bikes that are used extensively. There is no sign of crushing or impact damage to the wheel rims or fork blades, or sign of denting or other such damage to the frame.

Marks on both wheel rims showed that the rider knew how to use the front brake as well as the rear brake.

Except for the failure which caused Mr. Lockwood's accident, this bike was in better condition than most teenagers' bikes I have observed.

The accident occurred when Mr. Lockwood lifted up on his handlebars to clear a manhole cover. What this means is that the joint between the fork crown and steerer tube had weakened to an extent that the weight of the wheel and fork blades (less than ten pounds combined) was enough to pull the joint apart. This joint had weakened to an extent that it could be pulled apart by this very modest force.

#### <u>Industry and government standards for steerer tube attachment</u>

The U.S. Consumer Product Safety Commission (CPSC) has had a standard for fork integrity since 1976. The relevant section reads:

> The fork and frame assembly shall be tested for strength by application of a load of 890 N (200 lbf) or at least 39.5 J (350 in-lb) of energy, whichever results in the greater force, in accordance with the frame test § 1512.18(k)(2), without visible evidence of fracture or frame deformation that significantly limits the steering angle over which the wheel can be turned.2

What the CPSC rule states is that the fork needs to withstand a 200-pound force without rendering the bike unusable. A bike that falls into pieces from the force of those pieces' own weight does not meet this standard.

The industry has a very high standard for steerer tube attachment, and failures of this joint are considered unacceptable. There are two major reasons why:

- The steerer tube is a single point failure mode. If it breaks, or separates from the fork, you crash. Most other parts on the bike have redundant systems; if one brake fails, you have another; if the left chainstay breaks, you have a right chainstay. But the steerer tube is critical all by itself.
- The steerer tube cannot easily be inspected. It is hidden inside the bike frame's head tube. The joint between the steerer tube and fork crown is assumed to be one that needs no maintenance or inspection for the bicycle's life.

By tradition, bicycles are built so this joint is stronger than the pieces surrounding it. When you inspect a bicycle that has been in a hard front-end crash, you'll often see severe bending in the fork

<sup>&</sup>lt;sup>2</sup>U.S. Consumer Product Safety Commission Requirements for Bicycles - Code of Federal Regulations, Book 16, § 1512.14

blades and/or the front part of the bicycle frame. But the joint between the steerer tube and fork crown remains secure.<sup>3</sup>

When a fork of typical strength fails, it must have a benign failure mode. The steel forks that were used on bikes through most of the past century bend, rather than breaking. This can allow the rider some control over the steering even as a crash is occurring.

On suspension fork bikes, one commonly sees several designs which would eliminate the risk of the steerer tube separating from the fork crown. In recent months, I have observed that just about every front-suspension bicycle sold in discount department stores (Pacific Cycles's main sales outlet) uses an all-steel, all-welded design. Among suspension forks that insert a steel steerer into a cast fork crown (the Pacific USA Strike design), it is an accepted industry practice to use a flange on the bottom of the steerer tube. The flange guarantees that the steerer tube/fork crown joint will not fail while riding.

I did not observe any epoxy or other adhesive on the failed joint in the Pacific USA Strike bicycle. Further communication with the fork manufacturer will be necessary to determine whether the intended design was a simple press fit or a design that relied on adhesive. However, I will add that when this joint uses epoxy, at least one company in the industry sees to it that the joint typically stays solid even as the metal around it fails. This is true for both ultimate strength testing and for units that have been weakened by extensive corrosion from a humid environment.

#### Conclusion:

My opinions are as follows:

- The cause of the accident was mechanical failure, and not abuse or rider error.
- Pacific Cycles and SR did not adequately test the construction method used on the Pacific USA Strike fork. Indeed, they did not adequately consider whether this construction method was appropriate, given the inevitably that failure would lead to personal injury.
- Had Pacific Cycles and SR done adequate testing, they would have uncovered the fact that this joint weakened over time, and they would have sought an alternate design.
- At least three alternate construction methods come to mind: an all-steel welded construction; a steerer tube with a flange at the bottom, and a properly epoxied press-fit system. All were common industry practice at the time the Pacific USA Strike bicycle was made.

Therefore, speaking as an expert in bicycle safety, bicycle design, and bicycle industry practices, I conclude with a reasonable degree of certainty that the defective design and/or workmanship in the Pacific USA Strike bicycle was the sole cause of Mr. Lockwood's accident.

Very truly yours,

John Schuber

3 Author Fred DeLong, one of the 20th Century's most important technical writers in bicycling, thought this fact important enough that he published a photograph of a fork bent, but not broken, by impact, on Page 112 of his landmark book, DeLong's Guide to Bicycles and Bicycling (Chilton, 1974, 1978)

# **EXHIBIT 7**

#### GE ENGINEERING, INC.

120 Kalmia Drive
ASHEVILLE, NORTH CAROLINA 28804
PHONE: (828) 236-1492
MOBILE PHONE: (828) 216-0518
FAX: (828) 236-0355

JAMES M. GREEN, P.E., DEE PRESIDENT e-mail: setg@mindspring.com
WEB: www.BIKERECONSTRUCTION.COM

LICENSED NORTH CAROLINA

August 19, 2002

Michael P. Smith, Esq. Salisbury, Clements, et al 300 West Pratt St. Suite 450 Baltimore, MD 21201

Subject: A Determination of the Causal Factor of the Accident that Occurred to William Lockwood

Dear Mr. Smith:

#### Introduction

As you have requested, I have determined the causal factors of the accident that occurred to William Lockwood (the cyclist).

On June 7, 1999, William Lockwood, the cyclist, was riding a Pacific Cycle mountain bike when the suspension fork separated. The separation occurred at the point where the steering tube was inserted into the fork crown.

#### **Engineering Analysis**

The pertinent points of this engineering analysis are as follows:

<u>Bike Inspection</u> – The subject bicycle was inspected in the offices of GE Engineering, Inc. from June through August 2002. The important points of the inspection are noted as follows:

- The bicycle is a Pacific USA mountain bike with a Shimano Atlas group
- The handlebar clamp is a Kalin.
- The handlebar is a Kalin.
- The serial number is C5J04096 and is located on the underside of the bottom bracket.
- The front fork is a SR Duo Track 7006.
- The front fork is separated from the steer tube at the fork crown.
- The steer tube is designed to go inside of the fork crown tube as noted in Figure 1.
- The steer tube has striations on the outside as noted in Figure 2.
- The fork crown tube has striations on the inside as noted in Figure 3.



Inspection of the subject bicycle reveals that the causal factor of the accident was the separation of the fork crown from the steering tube. The steering tube is designed to go inside of the fork crown. Juxtapositioning of the tube with the fork crown reveals a tight fit with no play between the two components.

Microscopic inspection up to 200X magnification reveals no soldering or welding chemical residual to be present.

Forces on the Fork Crown - As noted in Figure 4, the head set on a bicycle is designed to dissipate the forces normally associated with riding the bike. The steer tube fits through the upper head race center. The fork crown rests directly under the lower head tube race. The head set basically handles the force dissipation through the upper and lower races. The steer tube is turned by applying force to the handlebars and allowing the race on the upper head tube and the race on the lower head tube to rotate on the bearings. Even under extreme conditions, very little of the overall force on the head set is dissipated onto the head tube or at the junction of the head tube with the fork crown.

#### **Engineering Conclusions**

The subject steer tube is designed to fit into the fork crown along the noted striations. The steer tube is designed to then be welded into place so it does not separate from the fork crown. From my examination of the subject cycle, the following conclusions are given with a high degree of Engineering probability.

- 1. The steer tube was not welded into place so that it would not separate from the fork crown.
- 2. The fact that the steer tube was not welded into place caused the steer tube to prematurely separate from the fork crown. This failure to weld the steer tube into the fork crown is a manufacturing defect.
- 3. The premature separation of the steer tube from the fork crown was the direct causal factor of the accident that occurred to the cyclist, William Lockwood.

Best Regards:	STOP CESSO 12 E	
Janam Shen	SEAL 016499	
James M. Green, P.E., DEE	Manual West 22, 2002	
I, <u>Sanet</u> G, Green certify that <u>Janes</u> M. Great acknowledged the due execution	, a Notary Public for Buncombe Cou	anty, North Carolina, do hereby d before me this day and
Witness my hand and official sea	I, this the 22 <sup>nd</sup> day of August	2002.
	Dant St	reen
My commission expires	aloubanc	

Figure 1: Inside View of the Steer Tube and the Fork Crown

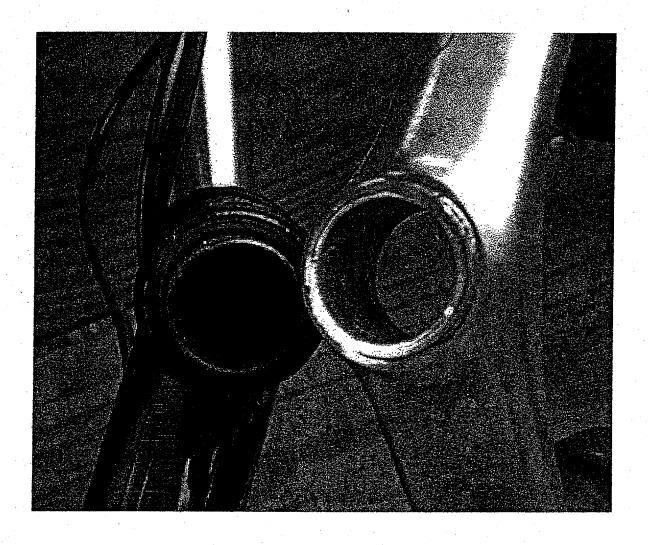


Figure 2: Striations on the Outside Steer Tube

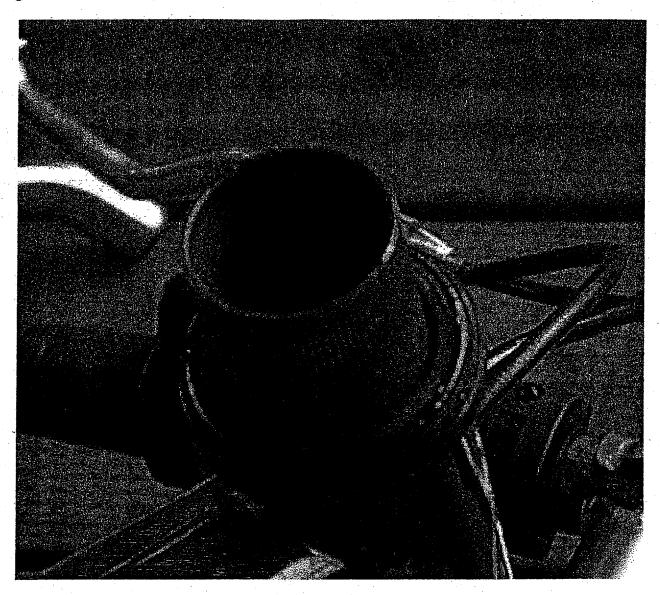
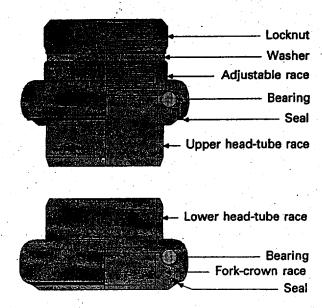


Figure 3: Striations on the Inside of the Fork Crown



Figure 4: Typical Head Set Components





PO Box 3310 Duluth, GA 30096-0057

January 29, 2003

Michele R. Kendus, Esq. VENABLE, BAETJER & HOWARD, ESQS. 2 Hopkins Plaza, Suite 1800 Baltimore, MD 21201-2971

Re: William Lockwood vs. Pacific Cycle, et al KD&W File No. 014494.0006 Our File No. 22.1005

Dear Ms. Kendus:

In accordance with your request, the writer has reviewed file material pertinent to the captioned matter. This material included the transcript of Plaintiff's oral deposition testimony, technical reports prepared by Mr. James Green, Dr. Robert Hinton and Mr. John Schubert; an invoice from the Bike Line bicycle shop, and related technical material. In addition, on 10/18/2002 the writer traveled to the office of the Plaintiff's Attorney and inspected the bicycle reportedly involved in the captioned 6/7/1999 accident. During this inspection, photographs were taken with prints previously provided to you for information and general reference.

The subject bicycle was identified as a red/black fade color, men's style mountain bike. Further, it displayed the following identifying markings.

Head Tube: Pacific
Top Tube: Strike
Down Tube: Pacific USA

Fork Blade: SR DuoTrack 7006

Bottom Bracket: C5J0496

Date codes observed on the bicycle were consistent with many components and the bicycle itself having been built in 1995.

In addition, components added to the frame to complete the bicycle included the following. The 21-speed drive train was comprised of black steel/polymer pedals affixed to a 3-piece crank serving to drive a triple chain ring joined to the 7-speed freewheel by a roller chain. Gear selection was accomplished by handlebar mounted grip actuated index shifters serving to operate the front and rear SIS derailleurs through cable control. Mountain tread, tires of the 26" by 2.1" (front) and 26" by 1.9" (rear) size were mounted on alloy rims with Schraeder valved tubes. The observed mismatch of the front and rear tires and rims was noted as very unusual, leading the writer to question that bicycle alteration. Bicycle braking

E-mail: <u>dave@metltd.com</u>
Internet: <u>www.metltd.com</u>

N: 34° 01.486′ W: 84° 11.850′ Phone: (678) 475-9000 Fax: (678) 475-9112 Ship to: 5535 State Bridge Rd. Alpharetta, GA 30022 Re: Lockwood vs. Pacific, et al

January 29, 2003

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was accomplished with Shimano Altus® cantilever style brakes actuated through cables by handlebar mounted levers. Black saddle and handlebar grips with bar end levers were provided. The bicycle was fitted with accessories that included a cable lock, water bottle bracket and tire inflator holder.

It is the writer's understanding that while riding the bicycle in the company of a friend, Mr. Lockwood was repeatedly performing "bunny hop" maneuvers over manhole covers when, on one occasion, the front fork separated and he fell to the ground. The injuries resulting serve as the basis for the captioned claim.

The inspection proceedings disclosed the bicycle to have sustained notable wear and tear in the form of scratches, scrapes, severe chain wear, displacement of the handlebar within the stem clamp, and other physical damage. The bicycle remained serviceable; but for the separation that occurred between the front fork crown and the steerer tube. That separation permitted the fork crown and all components below it (fork blades, front wheel, front brakes, etc.) to detach from the remainder of the bicycle.

It should be noted that the involved fork was manufactured as a standard, catalog item and not built especially for the involved Pacific "Strike" bicycle by the following company.

SR Suntour, Inc.
No. 7, Hsing-Yeh Road
Fu-Hsing Industrial Dist.
Changhua Hsien 506
Taiwan, R.O.C.
Tel.: 886-4-7697881
Fax: 886-4-7694028

Scrutiny of the front fork revealed that it had been built with a mechanical connection utilized to join the steel steerer tube to the aluminum alloy crown. There are many materials utilized in modern fork construction including steel and steel alloys, aluminum alloys, and composite materials. The fork crown and steerer tube may be built of the same material or, more commonly, they may differ. Indeed, either component may be built from any of the foregoing materials. The crown and steerer tube may be joined by welding, brazing, adhesive bonding or a mechanical fit. The joining of the two portions, if accomplished mechanically, may be a press fit, a thermal bond or joined by additional mechanical devices. Experience in joining the variety of materials to build a successful fork has been gained over the decades of modern fork manufacture. Indeed, fork manufacture has become so specialized that it is common for modern forks to be built by companies that specialize in the manufacture of those components and do not build entire bicycles. Correspondingly, bicycle manufacturers have come to rely on specialized forks, such as the suspension fork at issue in this case, and do not build forks specific to their bicycles. Such is the case with the SR SunTour DuoTrack 7006 fork that separated on Mr. Lockwood's bicycle. It was a standard, off-theRe: Lockwood vs. Pacific, et al

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shelf fork that happened to be incorporated as a component by the bicycle manufacturer. That same principle also applied to the saddle, handlebar, pedals, brakes, chain, derailleurs, wheels, tires, tubes, cranks and other components of Mr. Lockwood's bicycle.

Based upon the file material reviewed, the 10/18/2002 bicycle inspection and the foregoing understandings, it is the writer's opinion that the subject bicycle was properly designed and assembled in accordance with accepted engineering practice. Further, the bicycle violated no known applicable codes or standards. It should be noted that there is no specific test required of every bicycle. Rather, a bicycle design must be tested to confirm that applicable requirements are met through destructive testing of prototypes. In addition, the fork tests required for bicycles do not test the fork crown/steerer tube joint strength.

It is the writer's further opinion that the specific SR SunTour DuoTrack 7006 fork installed on Mr. Lockwood's bicycle differed from other, virtually identical, forks in a manner that permitted the observed fork separation. The specific strength of the mechanical joint holding Mr. Lockwood's fork together cannot be assessed at this juncture due to the separation and consequential damage. Accordingly, the efficacy of the steerer tube/crown joint cannot be evaluated in the post-accident condition resulting in a specific opinion as to any defect or deficiency in that fork. Without knowing the specific dimensions and tolerances intended by the fork manufacturer, no specific deviation from the manufacturer's intended design may be identified at this time.

It is additionally the writer's opinion that the SR SunTour DuoTrack 7006 fork has not been the subject of safety recalls; nor has it displayed a history of fork failures or fork crown/steerer tube joint separations. Accordingly, the involved fork is not typical of that fork model. It is the writer's opinion that conditions related to the manner of use and/or the specific manufacturing procedures related to this fork ultimately led to the fork separation.

It is the writer's concluding opinion that the fork on Mr. Lockwood's bicycle was different than other DuoTrack 7006 forks and that difference, in conjunction with the manner of use, directly led to the fork crown /steerer tube separation. The propensity for that separation to occur was, in the writer's opinion, beyond the ability of the bicycle manufacturer to mitigate or control.

The foregoing opinions are expressed to a reasonable degree of engineering probability and may be augmented or modified based upon additional investigation or discovery.

Filed 05/29/2003

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Kindly feel free to contact the writer if additional information or discussion is required.

Sincerely, David a. Mithell

David A. Mitchell, P. E. **Engineering Consultant** 

cc: Kenn Brotman, Esq.

569 East Gay Street, P.O. Box 656, West Chester, PA 19381-0656 USA 1-610-436-5400 • FAX: 1-610-436-5755 • E-mail: spi2spi@2spi.com Website: www.2spi.com

15 April 2003

Mr. Edward J. Lopata, Esq. Tydings & Rosenberg LLP 100 East Pratt Street Baltimore, MD 21202

Re: Lockwood v. Pacific Cycle, et al.

Dear Mr. Lopata:

This letter will constitute my preliminary report in this matter. At your request I have examined the bicycle at issue and reviewed documents including expert reports, expert credentials, bicycle owner's manuals, deposition transcripts, pleadings, photographs of the bicycle and a bicycle repair invoice.

#### Background:

According to the available materials, the bicycle at issue was produced by Pacific Cycle, purchased at Toys R Us in 1997, repaired in 1998 and involved in an accident in which William Lockwood was injured in 1999. The alleged cause of the accident was the separation of the steering tube from the fork crown while Mr. Lockwood was executing a "bunny hop" maneuver over a manhole cover.





Mr. Edward J. Lopata, Esq. Tydings & Rosenberg LLP

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#### Examination:

The bicycle was examined visually under room lighting April 2003. The conditions in Baltimore, MD on 10 consistent with appearance the bicycle is of photographs which have been obtained by others. The bicycle has been disassembled, and it is obviously not in the same condition as it was immediately following the accident. In particular, the steerer tube is loose in the frame, suggesting that someone has removed the steerer tube for inspection and not retightened the connection. The record indicates that the bicycle has been shipped at least once in the box in which it was being stored at the time of the examination.

Several areas of the bicycle show evidence of very heavy use and repeated contact with pavement or other hard, abrasive materials. The ends of the handlebars are deformed in a manner which is consistent with many such impacts. Some components, such as the seat and the rear wheel, appear to be relatively recent replacements. The fork crown has separated from the steerer tube. The steerer tube has striations in the joint area, and there is very little evidence of deformation on the steerer tube; there is one area which may represent some deformation during final separation and/or impact with a hard surface following the final separation. There are indications that the bicycle saw considerable use with the rear wheel either bent or misaligned so that it rubbed on the frame.

The joint area of the fork crown exhibits two different appearances. In the lower portion, there are essentially undisturbed striations which would appear to correspond with the striations on the steerer tube. On the upper portion, the metal is smeared, consistent with repeated motion of the fork crown relative to the steerer tube. This damage is not consistent with a single, final separation event; rather, it is consistent with continued looseness of the joint between the steerer tube and the fork crown over a long period of use.

Mr. Edward J. Lopata, Esq. Tydings & Rosenberg LLP Page 3 15 April 2003

### Analysis:

The record indicates that the bicycle at issue was designed with three major objectives in mind:

- To appeal to the customer as a "mountain bike" type bicycle.
- 2. To sell at Toys R Us for approximately \$150.00.
- 3. To meet all applicable regulations.

The record also indicates that the bicycle at issue was not designed for aggressive off-road riding and that it was not designed for stunt riding. The record is not clear whether the bicycle at issue was designed to "bunny hop" over a manhole cover when ridden by a person weighing 180 pounds.

The design process which was used included several parties: Toys R Us set the overall objectives; Pacific Cycle turned those objectives into design specifics; China Bicycle Company designed a bicycle to meet all of the applicable objectives, selecting from among off-the-shelf components manufactured by several companies, including SR Suntour. The crown fork assembly which was selected by Pacific Cycle was produced by SR Suntour.

The design used by SR Suntour for this particular crown fork assembly uses a steel steerer tube and a nonferrous fork crown; these components are joined together by a process described as thermal bonding. The record does not indicate precisely how this thermal bonding is accomplished in practice; it is assumed that the aluminum is heated and/or that the steel is cooled, but details are not available at this time. The resistance to relative motion between the steerer tube and the fork crown is aided by the steerer tube presence of striations on the effectively lock the steerer tube into place in the fork crown. The condition of the joint portion of the fork crown is consistent with loosening of the joint and repeated rotary motion of the steerer tube in the fork crown. By all indications, the separation of the steerer tube and the fork crown was a progressive event and not a sudden failure.

Mr. Edward J. Lopata, Esq. Tydings & Rosenberg LLP

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The record indicates that Mr. Lockwood noticed a looseness somewhere in the steering mechanism of the bicycle during 1998, the bicycle was taken to a bicycle mechanic and repairs were made to the bicycle at that time. The record does not indicate whether this looseness was the observed looseness of the steerer tube in the frame, a warning of the progressive failure in process or the often experienced looseness of the joint between the steerer tube and the handlebars.

It has been suggested that the integrity of the joint between the steerer tube and the fork crown would be improved by the use of welding and/or adhesive bonding. In practice the welding of steel to nonferrous metals is difficult to accomplish. Adhesive bonding might have added a small amount to the mechanical strength provided by the striations and the thermal bonding process, but at the time of the accident the joint had clearly failed to the point where the steerer tube was able to move within the fork crown; even in this failed condition, the bicycle continued to function until Mr. Lockwood's "bunny hop" maneuver.

The record indicates that the design of the crown fork assembly probably met the established objectives of price, appearance and performance at the time that the crown fork assembly left the control of SR Suntour and, indeed, the control of China Bicycle Company, Pacific Cycle and/or Toys R Us. After the bicycle left the control of these parties, it was subjected to considerable abuse, and as a result of that abuse, the connection between the steerer tube and the fork crown was separated, ultimately leading to the accident.

Mr. Edward J. Lopata, Esq. Tydings & Rosenberg LLP

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#### Conclusions:

- 1. The crown fork assembly was designed and manufactured to meet the established objectives for the bicycle of price, appearance and performance.
- 2. The crown fork assembly failed as the result of abuse of the bicycle.
- 3. Despite the separation of the joint of the crown fork assembly, the joint continued to provide support and steering control of the bicycle until the "bunny hop" maneuver was attempted.

Obviously, as discovery continues in this matter, it may be necessary to modify or expand on these conclusions. Please let us know if we may be of further assistance with this or any other materials problem.

Sincerely,

Andrew W. Blackwood, Ph.D. Vice President, Technical

AWB: fo

Work No.: B1387 Inv. No.: 35681

- Q. Okay. Anything else?
- A. There is a mark in the inside of the frame where the rear wheel would travel which indicates prolonged contact, probably with the tire.
  - O. Where would that be?
- A. On the inside of -- I forget which side it is, but on the inside here.
- Q. So the inside of the tire where the tire meets the spokes, the part that's holding the spokes? I probably know as much about a bicycle as you do.
- A. Well, where the tire rubs on the frame if it isn't properly aligned.
  - Q. Okay.

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- A. And there are just bangs and dings all over.
  - Q. Are there bangs and dings in the frame?
- A. There is -- we don't have a set of the electronic pictures, do we? I had assumed they would be here. I'm sorry.

There is one -- I'm trying to remember where it is. Somewhere around the crank, but

overall, there is evidence of repeated contact with this and that.

- Q. And do you have anything that you can point me to to indicate what was the cause of the markings, other than repeated contact with pavement and other hard, abrasive materials?
  - A. Could you read the question again, please?
  - Q. Let me say it in a different way.

Do you have any evidence that the heavy use markings that you have told us about occurred through other than normal and expected use of the bicycle?

- A. I think there is a question as to what is normal and expected use, especially in terms of how often is a bicycle expected to hit the ground violently in normal and expected use.
- Q. When you say hit the ground violently, what do you mean?
- A. If you look at the handlebars, they have repeatedly moved against something hard and abrasive -- perhaps pavement, perhaps not, but something like pavement -- in a manner that indicates

that the bicycle was traveling when the contact was made, that there was some weight involved in the contact. In other words, these are not the marks of simply falling over; they're scored and abraded as if there has been repeated contact, and it's both ends, it's not just one end.

- Q. When you say the end, I'm looking at the handlebars here. Are you referring to the part after the angle, where I guess someone would put their hands, or are you talking more about the straight part of the handlebar?
- A. The straight part is where that comment focuses.
- Q. And is it the metal material that has the evidence of heavy use or is it the -- whatever the black material is made of?
- A. Well, both do, but the metal is where the observation seems most important.
- Q. Based on your review of the entire record in this case -- again, independent of your observations -- do you have any information as to

1		professional engineer.
2	Q	I take it you don't claim to have any
3		expertise, as far as metallurgy is concerned?
4	A	Well, there is an overlap between the two
5		between the two fields in this particular part
6		of engineering. I don't pretend to be a
7		metallurgist, but I've used a lot of data from
8		metallurgists and have worked with a lot of
9		them through the years. But I'm not a
10		metallurgist and I'm not holding myself out as
11		a metallurgist.
12	Q	So if I understand what you're saying,
13		regardless of how strong the fit is in the
14		fork crown assembly, it's your opinion,
15		regardless of what the strength is of that
16	i	bond, that it's still at a high degree of risk
17		to become separated, due to temperature
18		changes and the effect of the temperature
19		changes on the steel and the aluminum because
20		you have dissimilar
21	A	You summarized that very well. Yes.
22	Q	Is that your opinion?
23	A	Yes.
24	Q	Is there anything else that could cause
25		separation, other than what we've just gone

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47 through, absent, as one of the experts said 1 the other day, a train running over the thing? 2 Oh, yeah, any of those collateral issues. 3 Α That's what you guys do when you get to trial. 4 Well, I think you have an idea of what my 5 opinion is pretty good so I'm not going to 6 keep beating on that. There are some other 7 issues here that I'm going to -- I'm going to 8 mention for the sake of completeness. And I'm 9 not -- I'm not saying that I have any -- any 10 data to suggest that this did or did not --11 these -- this list did or did not occur, but I 12 think it needs to be read into the record, to 13 answer your question. No. 1 is that it very 14 well may have been that the steer tube and the 15 16 front fork may have been mis-sized during the manufacturing process. I can't rule that out. 17 That's a possibility but you don't have any 18 Q 19 facts one way or the other? Right. In all of these I'm listing I don't 20 Α have -- they are possibilities and I have no 21 facts to back them up; okay? But I think for 22 the sake of completeness they should be 23 listed. No. 2, there may very well be in the 24 procedure and epoxy type of bonding process 25

48 and it was just missed on this front fork. 1 They may very well do that, they being 2 Suntour, at their plant and they just didn't 3 do it on this one. They missed it. You may 4 have a bad lot out there because of that. 5 Although I don't recommend the bonding process 6 such as we're dealing here, it may very well 7 have been that during the mechanical bonding 8 process in the lab -- excuse me, at the 9 manufacturing site, that there was a 10 misalignment here when the two were joined. 11 So as a result, since steel is stronger than 12 aluminum, that if there was a misalignment 13 when they were pressed together, you would get 14 larger striations in there than you would get 15 normally, "in there" being on the front fork. 16 You now would cause the bonding not to be very 17 well done. Again, it's a possibility. 18 nothing to back that up. I'm just listing 19 things that could have happened. 20 With regard to your CV, I want to ask you a 21 Q question. You're on an ethics committee? 22 I'm not on it anymore. I was. 23 Α You talk about miscellaneous memberships, 24 2002, you've got on here fellow of the 25

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SR SUNTOUR, INC. and :	1 (Hinton Exhibit Numbers 1 and 2 were			
SR SUNTOUR, USA. :	2 marked for identification.)			
Third-Party :	3 ***			
Plaintiffs :	4 ROBERT W. HINTON, having been duly			
DEPOSITION OF ROBERT W. HINTON	5 sworn, was examined and testified as follows:			
Taken in the offices of Gallagher	6 EXAMINATION			
Reporting & Video, LLC, 33 South Seventh Street, Suite	7 BY MR. LOPATA:			
105, Allentown, Pennsylvania, on Friday, April 11,	8 Q. Sir, my name is Ed Lopata, and I represent			
	I			
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registered Ment reporter.	<ul> <li>USA, also known as USUL, and Suntour, Inc., from</li> <li>Taiwan. And we're here to take your deposition</li> </ul>			
CALLACHER REPORTING A MORE ALLO	12 because you were lucky enough to be retained by			
GALLAGHER REPORTING & VIDEO, LLC.	13 Mr. Smith to give an opinion in the Lockwood			
33 South Seventh Street, Suite 105				
Allentown, Pennsylvania 18101	a company of a series deposited			
1-800-366-2980 — (610) 439-0504	a solution and a solu			
APPEARANCES:	17 could answer yes or no and verbalize your responses. 18 Otherwise we'd appreciate it because the court 19 reporter has to take down everything we say. So don't 20 moan and groan, just say yes or no if you can or just 21 respond to the question. We're going to assume if you			
SALSBURY, CLEMENTS, BEKMAN,				
MARDER & ADKINS, L.L.C.				
By: MICHAEL P. SMITH, ESQ.				
300 West Pratt Street				
Suite 450				
Baltimore, MD 21201	, and any discount you completely			
For the Plaintiff				
TYDINGS & ROSENBERG, LLP	, , , , , , , , , , , , , , , , , , , ,			
•	25 A. Robert W. Hinton,			
By: EDWARD J. LOPATA, ESQ.				
100 East Pratt Street				
26th Floor				
Baltimore, MD 21202				
For Third-Party Defendants				
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33 South Seventh Street, Suite 105				
Allentown, Pennsylvania 18101 1-300-366-2980 (610) 439-0504				

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Serunefi® GC Solware, Sealle, Washington

- You know. We have no record of abuse here, but. It 1
- 2 would take a high load to break the joint I think
- 3 initially. But only one load. And you probably
- 4 wouldn't know that it -- initially you broke the
- 5 joint. You may use the bike for hours, days, weeks
- 6 before that actually - once the joint is broken, then
- it can be worked loose with normal operation. There's
- 8 no safety device on this to prevent it from pulling
- 9
- 10 Q. Are you aware of any I take it you're
- not aware of any industry standards concerning whether 11
- 12 there should be, quote, a safety device, quote, as you
- 13 just alluded to as of May 1997?
- 14 A. No, I'm not aware of industry standards,
- concerning that.
- 16 Q. You're not aware of any statute or
- 17 regulations or anything, any type of requirements?
- 18 A. No. I don't know the business.
- 19 Q. In paragraph Number 1 you refer to thermal
- 20 expansion coefficients, et cetera, you say you've
- attached to the report. Can you explain to me what 21
- 22 you're referring to, sir?
- 23 A. Yeah. The first attachment, Table A-7
- 24 entitled Physical Constants Of Materials, lists the
- 25 modulus of elasticity of a number of alloys and steels
  - and irons. And what I was most interested in here.
- 2 the aluminum, the modulus of elasticity, the
- 3 essentially elastic stiffness of aluminum is only 10.3
- 4 in the first column. And if you look at carbon steel.
- 5 it's 30.
- 6 Now, this is a physical property,
- and therefore the alloy content can vary widely, in 7
- 8 aluminum and in steel, and the strength can vary
- widely. But the elastic modulus is a physical 9
- 10 property which remains relatively constant, within a
- 11 few percent, for all alloys of aluminum for example
- 12 and all alloys of steel.
- 13 So the fact that the aluminum is
- only one-third as elastic as steel indicates to me 14
- 15 that you would lose essentially two-thirds of your
- 16 strength in an interference fit in which the aluminum
- 17 is on the outside diameter and the carbon steel is on
- 18 the inside diameter.
- 19 Q. Because the fit would only be as strong as
- 20 the aluminum alloy?
- 21 A. Yes. The aluminum is really giving up
- three times the compressive in tension, it's giving 22
- 23 up three times the stretch of the carbon steel. And
- 24 that makes the joint weaker.
- 25 Q. Even though that they have been thermally

#### bonded or mechanically fitted into place?

- 2 A. Yes. Either thermal or mechanical would
- 3 still see this difference. This is a physical
- 4 difference. It's fundamental. So it doesn't matter
- 5 how - whether - how you put it together.
  - And there's also going to be if
- 7 you try to thermally fit this together and get an
- 8 extreme interference fit, there's going to be a limit
- 9 from the aluminum strength. It will eventually yield.
- 10 And then that also gives you a limitation to the
- 11 aluminum.
- 12 Q. So as you force this thing in there and
- it's in there as tight as it can possibly go, you're 13
- saying over a period of time it's going to weaken. 14
- 15 Just because it's steel and aluminum.
- 16 A. No. What I'm saying is that the original
- 17 bond - if you were forcing steel into steel, steel
- 18 OD, steel ID, you would have a bond strength that
- 19 would be three times what you're doing with aluminum
- 20 QD, steel ID.
- 21 Q. Right.

Pege 42

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- 22 A. Because of the elastic modulus. So you're
- starting out with a bond strength of this mechanical 23
- 24 fit that's one-third of steel to steel.
- 25 Q. Okay. But as we have establish I think

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- as we have established here through your testimony, 1
- the fact that it's not steel to steel doesn't
- necessarily mean that it violates any industry 3
- standards?
- 5 A. No. That's true.
- 6 Q. Okay. And my question to you, we have
- 7 aluminum and we have steel, and you stick it together
- 8 as hard as you possibly can get it together. Okay.
- What causes it to separate then? What happens to the 9
- 10 metal? Is it something that happens to the metals or?
- 11 Or you don't know?
- 12 A. Yeah, I -- in the case of the failure, the
- 13 failed bike, I really don't know what happened. I can
- 14 speculate, but -- it obviously separated, so something
- 15 broke the bond. Whether it was normal use or some
- 16 overload condition, I really don't have the history
- 17 to - but I can tell you that something, once the bond
- 18 is broken, it's only broken once.
- 19 Q. All right. In Number 3, you're talking
- 20 about "Mechanical and physical properties of carbon
- 21 steel and aluminum alloys are attached." You haven't
- 22 made any determination that this was carbon steel that
- 23 was in this Duotrack?
- 24 A. No. Again I'm quite sure it's steel.
- 25 because of its appearance. But I certainly don't know

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DEPOSITION OF JOHN D. SCHUBERT	6	y			
Taken in the offices of Gallagher	7	BY MR. LOPATA	. =		
Reporting & Video, LLC, 33 South Seventh Street, Suite			ate your full name,		
105, Allentown, Pennsylvania, on Friday, April 11,	9	please.	ace your ran name,		
2003, commencing at 1:10 p.m., before Steven R. Mack,	1	10 A. John Derick, that's spelled D-e-r-i-c-k,			
Registered Merit Reporter.		11 Schubert, S-c-h-u-b-e-r-t.			
12 Q. Mr. Schubert, my name is Ed Lopata, and I					
GALLAGHER REPORTING & VIDEO, LLC.	13				
33 South Seventh Street, Suite 105		14 lawsuit filed by Mr. Lockwood against Pacific Cycles,			
	Allentown. Pennsylvania 18101 15 Toys "R" Us, and those Defendants brought in the				
1-800-366-2980 (610) 439-0504	16		dants as Third-Party Defendant		
	17		e your deposition today regard		
APPEARANCES: Page 2	18				
SALSBURY, CLEMENTS, BEKMAN,	Ŀ	18 your opinions, and particularly with regard to your 19 report of August 28th, 2002. 20 A little ground rules. If any			
MARDER & ADKINS, L.L.C.	1				
By: MICHAEL P. SMITH, ESQ. 300 West Pratt Street Suite 450 Battimore, MD 21201		. •	•	ton	
		<ul> <li>question I ask you, if you don't understand it, stop</li> <li>me and I'll rephrase the question. That's important</li> </ul>			
			espond to a question everybod		
			ou understood the question.	y a Monina	
For the Plaintiff	25		question you can answer		
TYDINGS & ROSENBERG, LLP		•	,		
By: EDWARD J. LOPATA, ESQ.					
100 East Pratt Street					
26th Floor					
Baltimore, MD 21202					
- For Third-Party Defendants					
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I was involved in the formation of the American Society of Testing & Materials subcommittee on bicycle design. I chaired one of its task groups for several years. And there was a task group on fork design as well, though I don't believe they ever published a fork standard,

But the impetus for this was because a gentleman named Jay DiMarco, I think that's D-i-m-a-r-c-o, who was the compliance or enforcement officer for CPSC, felt that we were getting too many mountain bike failures and that we needed industry standards that would again reflect the way — the way they're made, the new materials, the new joining methods, and the new way that the product is used.

And I'm not going to claim that I have figured out the answer to this, but it may be that you can conclude that the tests I quote in page 3 of my report works great for a braze steel fork, works great for a weld steel fork, and you might then find that test is not appropriate for a press fit fork with dissimilar metals.

And that's the kind of thing that the CPSC has asked the bike industry to address through the American Society of Testing & Materials

1 consensus design writing process. And it's been a

2 very slow process.

- 3 Q. Do you know when they made their request?
- 4 What year? Was it prior to May 1997 or subsequent to
- 5 May 1997?
- 6 A. Oh, yes, it was; it was prior to that. I
- 7 believe I got involved with them in '94 or '95, like
- 8 that. And I went to numerous ASTM meetings up through
  - 1998. The last one I attended was in 1998.
- 10 Q. Your next sentence in there, it says,
- 11 "What the CPSC rule states is that the fork needs to
- 12 withstand a 200-pound force without rendering the bike

13 unusable."

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So if in fact in this case this fork methodology using a mechanical fit had in fact withstood a 200-pound force without rendering the bicycle unusable, then the manufacturer of the fork would have met the criteria put out by the CPSC.

- 19 Correct?
- 20 A. It would have met that specific test,
- 21 yeah. And any --
- 22 Q. So -- I'm sorry.
- 23 A. Again, it may well be that Mr. Lockwood's
- 24 bike would have met that test the day it was sold to
- 25 Mr. Lockwood. And I'm supposing it's unlikely it

1 would have met that test five minutes before the

2 accident occurred.

3 Q. You're supposing it simply because the

4 separation occurred?

- 5 A. That's right.
- 6 Q. You also indicated, however, before that
- 7 nothing lasts forever, is that correct?
- 8 A. That's kind of broad, sir. I'm not quite
- 9 sure how to respond to that.
- 10 Q. I thought I heard you say when you were
- 11 talking about bicycles. Bicycles weren't like
- 12 toasters.
- 13 A. In that a bicycle needs maintenance. And
- 14 there are accepted things that are part of
- 15 maintenance. You know, periodically you need to
- 16 lubricate your chain, replace your chain. Inspect
- 17 various wear and tear items, replace them when
- 18 necessary. Replace the tires when they start to
- 19 get -- lose their tread thickness. On rare occasions
- 20 replace ball bearing sets that are excessively worn.
- 21 This joint is not considered a wear and tear or
- 22 replacement item.
- 23 Q. On your conclusions, you indicate "The
- 24 cause of the accident was mechanical fallure, and not
- 25 abuse or rider error." Do you base that conclusion on
  - 1 the fact that the separation occurred?
  - 2 A. That's right.

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- 3 Q. Solely on the fact that the separation
- 4 occurred and nothing else?
- 5 A. Smoke's pouring out of the gun barrel.
- 6 The gun was fired. Like that.
- 7 Q. So the fact that the accident occurred --
- 8 I mean the fact that the separation occurred and an
- 9 accident happened, that's all you need for your
- 10 opinion to say that it was a mechanical failure and
- 11 not abuse?
- 12 A. No. And I believe we covered that
- 13 earlier, sir. The rest of the bike does not show any
- 14 evidence of abuse or any extraordinary stress or
- 15 force; the proverbial looking for the train, that
- 16 would have been an alternate explanation for the
- 17 separation.
- 18 Q. Do you believe that other experts with
- 19 similar experience as you have could disagree with you
- 20 on whether the bicycle evidenced abuse?
- 21 A. Different people are going to have a
- 22 different threshold for what they call abuse. And,
- 23 you know, Mr. Lockwood did not take as good a care of
- 24 his bicycle as I take care of mine. But then again
- 25 I'm not 15 or 16 years old. And when I was that age

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### in the united states district court FOR THE DISTRICT OF MARYLAND MORTHERN DIVISION

WILLIAM LOCKWOOD.

٧,

Plaintiff

Civil Action No.

PACIFIC USA, LTD., PACIFIC CYCLE, LLC and TOYS "R" US - DELAWARE, INC.

WMN-02-CV-2068

Defendants.

AFFIDAVITOF NAOJI TANAKA

, the undersigned, do solemnly affirm that:

- 1. I am over 18 years of age, fully competent to testify as a wimess, and have first-hand knowledge of the matters set forth in this affidavit.
- 2. I currently am employed by SR Suntous, Inc. (SR Suntour) in the position of Agrelopment, which I have held since 1995
- 3. As engineering development am responsible for production of the various bicycle forks manufactured by SR Suntour.
- 4. The SR Suntour Duo Track 7006 model fork used in the Pacific Cycle Strike Mountain Bike that is the subject of this litigation was designed and manufactured using a mechanical bond fix to secure the steel steerer rube to the aluminum alloy fork crown.
- 5. At the relevant time it was, and it still is within the industry standard to design a fark using a mechanical bond fit to secure a steel steerer tube into a aluminum alloy fork crown. This is one of multiple acceptable designs for a bicycle fork component.

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6. SR Suntour has manufactured <u>\$000,000</u> forks using the same mechanical bond fit as that used for the SR Suntour Duo Track 7006 model, and none have been the subject of safety recall or demonstrated a history of fork failure or fork crown/steerer table joint separations.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on (48r 14 - 2003 [48re]

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